REPORT

OF THE

INDIAN UNIVERSITIES COMMISSION.

1902.

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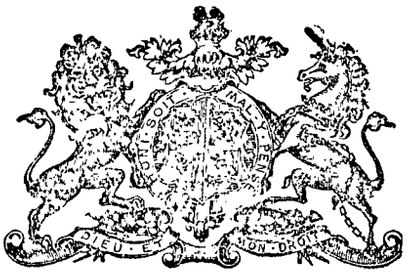

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CONTENTS.

	Pages.	Paras.
Section I.—Proceedings of the Commission	1	1—3
Section II.—History of Universities in British India ...	2—6	4—20
Section III.—Teaching Universities	6—7	21—26
Section IV.—Local Limits of the Universities	7	27—28
Section V.—Proposals for New Universities	7—8	29—32
Section VI.—Constitution of the Universities	8—13	33—53
1. Senate	8—10	33—43
2. Faculties	10—11	44—47
3. Boards of Studies	11	48—49
4. Syndicate	11—13	50—51
5. Registrar and Staff	13	52—53
Section VII.—University and College Libraries	13	54
Section VIII.—Graduates of the University	13	55—56
Section IX.—Affiliated Colleges and Institutions	14—20	57—80
1. Affiliation Rules	14	57—60
2. Governing Body of a College	14—15	61
3. Teaching Staff of a College	15	62
4. Buildings, Furniture, etc.	15	63—64
5. Discipline and Residence of Students ...	15—16	65—68
6. Courses of Study	16	69—70
7. Fees	16—19	71—75
8. Transfer of Students	19	76
9. College and School	19—20	77—78
10. College Life	20	79—80
Section X.—Teaching	20—43	81—155
1. General Remarks	20	81
2. Existing Arts and Science Courses ...	20—24	82
3. Subjects of the Arts Courses	24—31	83—108
(i) English	24—25	83—87
(ii) Latin, Greek and Hebrew ...	25—26	88
(iii) Classical Languages of the East ...	26—27	89—93
(iv) Vernacular Languages of India ...	27—29	94—99
(v) Modern Languages of Europe ...	29	100
(vi) Philosophy	29—30	101—104
(vii) Mathematics	30	105
(viii) History, Political Economy and Geography	30—31	106—108
4. Subjects of the Science Courses	31—33	109—116

	Pages.	Paras.
5. Outline of proposed Arts and Science Courses	33—34	117
6. Professional Subjects	34—43	118—155
(i) Law	34—35	118—122
(ii) Medicine	35—40	123—140
(iii) Engineering	40	141—145
(iv) Agriculture	40—41	146—148
(v) Commerce	41—42	149—151
(vi) Teaching	42—43	152—155
Section XI.—Examinations	43—52	156—188
1. Need for University Examinations ...	43	156
2. General Scheme of Examinations	43—44	157—159
3. Matriculation	44—45	160—162
4. The Age limit for Matriculation	45—46	163—165
5. Private Students	46—47	166—168
6. Matriculation and Government Service ...	47—48	169—170
7. Subjects of Examination	48—49	171—172
8. Examinations for Honours	49	173
9. Mutual Recognition of Examinations by Indian Universities	49	174
10. Dates of Examination	49—50	175
11. Places of Examination	50	176
12. Appointment of Examiners	50—51	177—179
13. Methods of Examination	51	180—185
14. "Examination by Compartments" ...	52	186
15. Candidates Failing to Pass	52	187
16. Percentages	52	188
Section XII.—University Funds	52—55	189—194
Section XIII.—Legislation	55	195
Concluding Remarks	56	196—198

Summary of Recommendations ... ... 57—72

Note of Dissent by the Honourable Mr. Justice Gooroo Dass Banerjee 73—86

Appendix A—List of Witnesses examined by the Commission ... 87—91

Appendix B—List of Colleges and Institutions visited by the Commission. 92—93

REPORT

OF THE

INDIAN UNIVERSITIES COMMISSION.

PROCEEDINGS OF THE COMMISSION.

By a Resolution of the Government of India in the Home Department, dated the 27th January 1902, it was intimated that the Governor General in Council had decided, with the concurrence of His Majesty's Secretary of State for India, to appoint a Commission* "to inquire into the condition and prospects of the Universities established in British India; to consider and report upon any proposals which have been, or may be, made for improving their constitution and working, and to recommend to the Governor General in Council such measures as may tend to elevate the standard of University teaching, and to promote the advancement of learning."

* *President*:

The Honourable Mr. T. Raleigh, M.A., D.C.L., Member of the Executive Council of the Governor General.

Members:

The Honourable Syed Hossain Bilgrami, Nawab Imad-ul-Mulk Bahadur, B.A.

J. P. Hewett, Esq., C.S.I., C.I.E., Secretary to the Government of India, Home Department.

A. Pedler, Esq., C.I.E., F.R.S., Director of Public Instruction, Bengal.

A. G. Bourne, Esq., D.Sc., F.R.S., Indian Educational Service, Acting Principal of the Presidency College, Madras.

The Reverend D. Mackichan, M.A., D.D., LL.D., Principal of the Wilson College, Bombay.

The name of the Honourable Mr. Justice Gooroo Dass Banerjee, M.A., D.L., was added by Government of India order No. 170, dated the 12th February 1902.

† Calcutta	. The Honourable Mr. Ashutosh Mukhopadhyay, M.A., D.L.
Madras	. C. Sankaran Nayar, Esq., B.A., B.L.
Bombay	. The Honourable Mr. Justice N. G. Chandavarkar, B.A., LL.B.
Allahabad	. T. C. Lewis, Esq., M.A., Director of Public Instruction, United Provinces.
Punjab	. W. Bell, Esq., M.A., Director of Public Instruction.

At each University centre, a local member† was attached to the Commission, for the purpose of the enquiry regarding the University at that centre.

2. In fulfilment of the duty entrusted to us by Government, we, the undersigned members of the Commission, have visited the five University towns of India. Public sittings of the Commission have been held as follows:—

Madras	. February 18th to 25th.
Poona	. „ 27th.
Bombay	. „ 28th to March 7th.
Calcutta	. March 13th to 25th and March 29th.
Benares	. April 2nd and 3rd.
Allahabad	. „ 4th to 9th.
Lucknow	. „ 11th.
Lahore	. „ 14th to 18th.

Sub-Committees of the Commission visited Bangalore, Ahmedabad, Nagpur, Jubbulpore, Patna, Kurseong, Agra and Aligarh.

We have examined in all 156 witnesses; a considerable number of witnesses and others have furnished us with written statements bearing on the points to which our inquiry was directed. We have also visited a considerable number of colleges and institutions affiliated to the Universities.‡

‡ For lists of witnesses examined and colleges visited, see Appendices A and B.

Having now considered and discussed the information thus obtained, we have the honour to submit our Report.

3. It may be well to explain at the outset that we do not propose to enter at length into a discussion of all the schemes and suggestions brought before us. We have endeavoured to exercise an independent judgment on the mass of materials at our disposal and to select for examination those proposals which appear to be of an immediately practical nature.

HISTORY OF UNIVERSITIES IN BRITISH INDIA.

4. Before the days of British rule, the higher education of the Hindu community was in the hands of Pandits who imparted a knowledge of Sanskrit Grammar, Logic, Philosophy and Law. In Bengal, wherever there was a large Brahman or Vaidya population, there were *tols* or *chatushpáthis;* the students lived in the houses of their teachers and were taught and boarded free of expense. The Pandits depended on gifts, and on rent-free lands assigned to them by Hindu and Muhammadan rulers. Hindu schools of a similar character were established in other parts of India.

Muhammadan learning was cultivated in schools not dissimilar to those above described, in which the students were provided with subsistence as well as instruction. It is part of the tradition of Indian scholarship that places of study are also places of residence, and that the teacher should exercise a paternal authority over his pupils. The course of study in a Muhammadan place of learning included Grammar, Rhetoric and Logic in the first three or four years, and subsequent courses of Literature, Jurisprudence and Science.

5. These ancient methods of teaching and study still subsist, though they can hardly be said to flourish; they receive encouragement both from the Princes of India and from British authorities, and in the course of this Report we shall submit certain recommendations in regard to the titles which they confer.

There is as yet little or no direct intercourse between places of indigenous learning and the Universities. Many of the native teachers are debarred by ignorance of English from obtaining degrees or taking part in University work; it is not surprising to find that some of them place the golden age of Indian learning in the past, and that they regard the progress of western science without enthusiasm. We note, however, with satisfaction that there are signs of an increasing desire for co-operation; and our inquiries in regard to ancient places of learning have been welcomed as indicating that such co-operation is considered desirable.

6. Of the colleges included in the scope of the present inquiry, the earliest were designed for the cultivation of Hindu and Muhammadan learning. The Calcutta Madrasa was founded by Warren Hastings in 1782, and was for a time maintained at his expense with the aid of an endowment supplied by his friend and former tutor, the Raja Nobkissen. But the preference for oriental studies gave way before an appreciation of the benefit to be derived from western knowledge. The movement in favour of English education, led by Raja Ram Mohan Roy, resulted in the establishment of the Hindu College in 1817; this institution lapsed into financial difficulties, from which it was extricated by the aid of Government, and was ultimately reconstituted as the Presidency College. Other early colleges of Bengal were the Serampore College (1818), the Calcutta Sanskrit College (1824), the General Assembly's Institution of the Church of Scotland founded by Dr. Duff in 1830, the Hughli College established from the funds of the Mohsin endowment in 1836, and the Institution of the Free Church of Scotland (1843). In addition to the Government colleges at Dacca, Berhampore and Krishnagar, there were also the Doveton, La Martinière and St. Paul's private foundations and the Bhowanipore College of the London Missionary Society.

In the Bombay Presidency a college was founded at Poona in 1821 "for the encouragment of the study of Sanskrit and of ancient Hindu Literature and Science." The scope of this college has been widened by successive changes in its constitution and it is now known as the Deccan College. The Elphinstone College had its origin in a fund raised for the foundation of professorships in 1827. The Wilson College, originally called the General Assembly's Institution, was founded as a high school in 1834.

In Madras the foundation of colleges began at a later date, and from the outset the western system of education has been followed. The General Assembly's Institution, now known as the Christian College, was founded in 1837; the Presidency College came into existence as a high school in 1841; and St. Joseph's College was established at Negapatam in 1846 by the Jesuits in charge of the Madura Mission.

The oldest college in the United Provinces is the Sanskrit College at Benares founded in 1791 "to cultivate the laws, literature and religion of the Hindus" and "specially to supply qualified Hindu Assistants to European Judges." A college was also established at Agra in 1823, and the college at Delhi was founded as an oriental college in 1825; the college at Bareilly arose in 1850 out of a high school founded in 1836.

7. The success of these institutions led to demands for the creation of Universities having power to grant degrees, and in 1845 the Bengal Council of Education submitted a proposal for the establishment of a University on the model of the London University. This proposal was considered by the Court of Directors to be premature, but nine years later the Honourable Court decided that the time had arrived for the establishment of Universities in India, and the proposal to take the London University for a model was accepted, subject to variation in points of detail. The function assigned to the Universities in the Education Despatch of 1854 was that of holding examinations and conferring degrees. It was thought advisable to institute professorships, for the delivery of lectures in branches of learning for the acquisition of which, at any rate in an advanced degree, facilities did not then exist in other institutions; and the subjects of Law, Civil Engineering, and the vernacular and classical languages of India were mentioned in this connexion; but the Universities were to be instituted, "not so much to be in themselves places of instruction, as to test the value of the education obtained elsewhere." Scholarships were to be attached to the affiliated institutions, and they were to be periodically visited by Government inspectors.

8. In accordance with these directions the Government of India decided to establish Universities at Calcutta, Madras and Bombay, and appointed a Committee to work out the details of a scheme in accordance with the outline sketched by the Court of Directors. In order to secure uniformity in important matters of principle, the Governor General in Council directed that the Committee should frame a scheme for all three Universities. While recognizing that local circumstances would necessitate modifications, the Government of India considered it essential that the legal status and authority of each University should be the same, and that at each Presidency town the same degree of acquirement in every branch of knowledge should entitle its possessor to the same kind of academical distinction and honour. The Court of Directors, to whom the Government of India reported their action, noticed these views with approval. The Committee was composed of the late Council of Education, with the addition of the gentlemen whom it was proposed to associate with them in the Senate of the Calcutta University and the Members of the Legislative Councils of Madras and Bombay. The Government of India suggested, for the consideration of the Committee, that two degrees should be granted in each of the subjects embraced in the design, namely, Literature, Science, Law, Civil Engineering and Medicine, and that students should have an opportunity of taking honours for each degree. They thought that one degree of the low standard contemplated by the Court of Directors would be of little value. They also left it to the Committee to consider what titles should be assigned to the degrees, expressing a doubt whether it would be expedient to use the nomenclature which had, from long usage, become peculiar to the Universities of England. With regard to the question of University professorships, the Government of India said that the establishment of the general Presidency College rendered them unnecessary for Calcutta, but that there would be no objection to found such as might be required either at Madras or Bombay.

9. The Committee appointed under these orders confined themselves to the consideration of regulations for the holding of examinations and the conferring of degrees; and left aside, as without their province, matters relating to the constitution and government of the Universities. Sub-Committees were appointed to prepare regulations for each of the Faculties of Arts, Medicine, Law and Civil Engineering and the schemes which they devised were submitted to the Governments of Bengal, Madras, Bombay and the United Provinces. After considering the criticisms made on the proposals, the Sub-Committees modified the draft rules and presented them to the General Committee. The latter made some alterations and then forwarded the scheme to the Government

of India. Subject to remark on one or two points it was approved both by the Governor General in Council and by the Court of Directors.

10. The Government of India reviewed the proceedings of the Committee in a Resolution, dated the 12th December 1856. After approving the recommendations they proceeded to consider the steps to be taken for the speedy establishment of the proposed Universities. The draft of a Bill of Incorporation, which had been generally approved by the Governor General in Council, was placed in the hands of the Honourable Sir James Colvile, Chief Justice of the Supreme Court in Bengal, who had been President of the Committee, and was afterwards first Vice-Chancellor of the Calcutta University, in order that he might take charge of it in the Legislative Council. In anticipation of the action of the legislature the Governor General in Council declared that the Governor General of India and the Governors of Madras and Bombay should be the Chancellors of the three Universities, and appointed the Vice-Chancellor and members of the Senate of the Calcutta University. It was left to the Governors of Madras and Bombay to appoint the Vice-Chancellors and Fellows of these Universities. The newly appointed Calcutta Senate were directed to promulgate the rules proposed by the Committee and sanctioned by the Government of India, and to pass such other rules, and take such further measures, as might be necessary to give early and full effect to the scheme.

11. The Bill introduced by Sir James Colvile was passed as Act II of 1857. The preamble recites that "for the better encouragement of Her Majesty's subjects of all classes and denominations within the Presidency of Fort William in Bengal and other parts of India in the pursuit of a regular and liberal course of education it has been determined to establish a University at Calcutta for the purpose of ascertaining by examination the persons who have acquired proficiency in different branches of Literature, Science and Art, and of rewarding them by Academical Degrees as evidence of their respective attainments, and marks of honour proportioned thereunto."

The Senate, as constituted by the Act of Incorporation, was composed of the Chancellor, the Vice-Chancellor, nine *ex-officio* Fellows, and 29 Fellows appointed by name. Taking the list as a whole, we find that it includes two Judges, two representatives of the Bar, five ecclesiastics, two Directors of Public Instruction and two Inspectors of Schools, five medical men, and five military officers, taken mainly from the scientific services. Seven of the Fellows appear to have been heads of colleges, and all colleges situated in Calcutta were represented on the Senate. The intention of the legislature obviously was to create a body of competent advisers on questions relating to higher education, and to give adequate and carefully balanced representation to the various studies and interests concerned. It was provided that the total number of Fellows should not be less than 30.

12. Act XXII of 1857, which incorporates the University of Bombay, is framed on the same model as the Calcutta Act above cited. The original Senate included 11 *ex-officio* Fellows and 18 appointed by name, and it was provided that the total number should not be less than 26.

13. Act XXVII of the same year, by which the University of Madras was incorporated, was also in substance identical with the Calcutta Act. There were eight *ex-officio* Fellows; 33 others were appointed by name; it was provided that the total number should not be less than 30.

14. By Act XIX of 1882, the Punjab (formerly Lahore) University College was incorporated as the University of the Punjab, "for the purpose of ascertaining, by means of examination or otherwise, the persons who have acquired proficiency in different branches of Literature, Science and Art, and for the purpose of conferring upon them academical degrees, diplomas, oriental literary titles, licenses and marks of honour." The preamble recites that the College was established "in part fulfilment of the wishes of a large number of the Chiefs, Nobles and influential classes of the Punjab" and that the University is constituted in further fulfilment of the wishes of the same persons and classes. The body of Fellows is to include (*a*) *ex*-Chancellors and persons holding offices notified by the Local Government, (*b*) persons appointed by the Chancellor by name, (*c*) persons elected by the Senate and approved by the Chancellor, (*d*) representatives of such Chiefs of territories not comprised in British India as the Local Government may notify in this behalf. The total

number is not to be less than 50, and the number of elected Fellows is not to exceed the number of those appointed by the Chancellor. The original Senate was composed of 14 *ex-officio* Fellows and 119 others. Under section 12 of the Act, the University has power to appoint Professors and lecturers.

15. In Act XVIII of 1887, which constitutes the University of Allahabad, the recitals and provisions which have sometimes been construed as restricting the older Universities to the functions of examining bodies are not repeated. There is therefore no doubt as to the legal power of the University to assume the functions of a teaching body; but, in its actual working, Allahabad has conformed to the practice of the older foundations. The body of Fellows constituted by the Act includes (*a*) persons holding notified offices, (*b*) persons appointed by the Chancellor, and (*c*) persons elected by the Senate and approved by the Chancellor. The number holding office under (*a*), (*b*) and (*c*) is not to be less than fifty; and the number elected and approved under (*c*) is not to exceed the number appointed under (*b*). The titles of 12 *ex-officio* Fellows, and the names of 32 others, are included in a schedule to the Act.

16. We do not think it necessary to trace in detail the history of Indian Universities. We content ourselves with summarising, in a few words, the changes which have taken place.

There has been a considerable increase in the number of colleges and institutions affiliated to Calcutta and Madras. Calcutta, which started with 10 Arts Colleges, has now 46 first-grade and 32 second-grade collegiate institutions. Madras has 15 first-grade and 39 second-grade colleges. Bombay, which claims in this respect to have pursued a wiser and more cautious policy, has 10 first-grade colleges and only one second-grade college. Allahabad has now 17 first and 13 second-grade colleges, and the Punjab University has 8 colleges of the first and 7 of the second grade.

17. Having visited a considerable number of these institutions, we are not disposed to confirm the sweeping condemnation which has sometimes been passed upon our University system. Many of the colleges command the services of able and devoted teachers; and we do not consider the students as a class to be wanting either in natural talent or in industry. In comparing our graduates with those of other Universities, it must be remembered that the Indian student often enters on his college course at an age when boys of other countries are still at school. We must also remember that the Indian Universities are of comparatively recent foundation, and that the resources of our Universities and colleges are very small when compared with the vast endowments of England and America and the large sums placed by the Governments of other countries at the disposal of their Universities. Taking all the facts into account, we see no reason to regret the determination at which the Government arrived in 1854.

At the same time we must admit that the acquirements of Indian graduates are in many cases inadequate and superficial. We make every allowance for the difficulties of a student who has to receive instruction in a foreign language. We do not forget that when western students received all their instruction in a classical tongue, the Latin of the Schools was more fluent than correct. But after all allowance is made, it is most unsatisfactory to be told that the Indian B.A. not infrequently lacks the general training which he requires to fit him for the business of life, or for a further course of study.

18. Some witnesses have given it as their opinion that our examination system is producing an injurious effect on the physique of the students. There can be little doubt that defects of eyesight are too common, and that some young men permanently injure their health by overwork. Our survey of this part of the subject would not be complete without some reference to the custom of early marriage. A student sometimes postpones his marriage for the purpose of finishing his college course, or in the hope that his value as a prospective husband will be raised if he passes an examination. A student is also by usage permitted to live a celibate life, even if he has a wife and family. In cases where no such restriction or caution is observed, it must be admitted that the marriage customs of the country involve a considerable deduction from the time and energy which young men are able to give to study.

19. While we consider that many of the criticisms passed on the Indian Universities are not deserved, we have come to the conclusion that in many directions

there is scope for improvement. Our endeavour will be to suggest, as briefly and clearly as the complicated nature of the subject permits, the methods of improvement which may in our opinion be adopted with the best hope of a satisfactory result.

20. Before we proceed to deal with the constitution and working of the Universities, we propose to take up certain questions which may be regarded as preliminary. Is it expedient that Indian Universities should be empowered and encouraged to take a direct part in teaching ? Ought we to define more exactly the local limits within which each University may affiliate colleges and hold examinations ? Is there any necessity, or any effective demand for the creation of new Universities ?

TEACHING UNIVERSITIES.

21. It is generally agreed that the legal powers of the older Universities have been so narrowly drawn as to suggest that they are restricted to the function of holding examinations and conferring degrees. There is also a very general desire that the powers in question should be enlarged, and that all the Universities should be recognized as teaching bodies.

22. If the Universities of India admitted candidates to their examinations without regard to the previous training of such candidates, or to the places from which they come, they would properly be described as examining Universities and nothing more. They do in fact draw their candidates from a limited number of affiliated institutions, and by setting the standard of examination and prescribing courses of study they exercise an indirect control over the teaching in such institutions. This circumstance has led some witnesses to contend that the Indian Universities are already teaching Universities. But the phrase " Teaching University " is usually taken to denote a University which makes direct provision for teaching by appointing its own Professors and lecturers.

23. The question whether and how far the Universities are able to make direct provision for teaching is one of considerable difficulty. There is no source from which the Universities can hope to obtain the funds which would be required for the entertainment of a staff of University Professors in every branch of learning. The colleges affiliated to each University are scattered over a wide area, and it is not easy to see how their students can be brought together to attend University lectures. And, inasmuch as the better colleges already make adequate provision for the courses of instruction leading up to the degree of Bachelor of Arts or Bachelor of Science, it does not appear that the intervention of the University at this stage would be attended by good results.

24. We think it expedient that undergraduate students should be left, in the main, to the colleges, but we suggest that the Universities may justify their existence as teaching bodies by making further and better provision for advanced courses of study. The University may appoint its own lecturers, and provide libraries and laboratories ; it would also be proper that the University should see that residential quarters are provided for students from a distance. Colleges co-operating in such a scheme would, we assume, be willing to contribute, by means of scholarships or otherwise, to the maintenance of those students who take advantage of the University courses. In this way central Schools of advanced study may in time be formed. One advantage of the plan is that it can be worked out gradually, without the great initial expense which the creation of a complete professoriate would involve.

25. It has been suggested that the Government college at each centre might be created a University college, and enabled to make all necessary provision for courses of advanced study. We agree that every Government college should be so fully equipped as to set a high standard of efficiency, but we consider that in all colleges our first object should be to improve the courses leading to the ordinary degrees and we apprehend that difficulties will be encountered if we attempt to give to any college a monopoly of advanced teaching. The outlying colleges may hesitate if they are asked to pass on their best men to another college ; there will be less hesitation if they are asked to send students to a central School, under the direct supervision of the University ; for the students in such a School may retain their connexion with their original colleges, and any distinction which they obtain will be placed to the credit of the institution from which they come.

26. Our plan has been met with an objection which demands careful consideration. If students are drawn from their own colleges to a central School, it is said that teachers in colleges will be limited to the routine of the undergraduate classes and that their teaching will suffer in consequence. We sympathise entirely with the teachers who have placed this view of the matter before us ; but we may point out that if the scheme we recommend restricts the opportunities of a college teacher in one direction, it may also open a wider field in another. In working a central School of Science, or Philosophy, or Literature, the University will naturally endeavour to utilise, as far as possible, the services of the best teachers in its own colleges. If a Professor has to part with some of his students when they begin their advanced work, he may cherish the hope of being appointed to deliver a course of University lectures, or in some other way to take part in the work of the central School. We do not forget that the staff of a college is usually not more than equal to the work imposed upon it ; but means may perhaps be found to relieve a Professor of part of his ordinary college duty, if he is required to give some portion of his time to advanced work elsewhere.

LOCAL LIMITS OF THE UNIVERSITIES.

27. In a later part of this report, we shall make proposals regarding the supervision to be exercised by the University over affiliated institutions. Such supervision can hardly be made effective at a great distance from the centre, and we recommend that the local limits of each University should be more accurately defined than they now are.

In the cases of Madras and Bombay, no change in existing arrangements seems to be required. Calcutta may continue, as at present, to include Burma and Assam in its sphere of influence ; but we consider that the Central Provinces and Central India may most conveniently be assigned to Allahabad, due provision being made for the representation of the colleges concerned on the Senate of the University. Steps should, we think, be taken to remove from the Calcutta list the affiliated colleges situated in the Central Provinces, the United Provinces, the Punjab, etc. ; and the colleges in Ceylon which send in candidates for the Calcutta examinations may be transferred to Madras, unless the colonial authorities are prepared to make some more suitable provision for their needs. The Punjab University holds an examination for oriental titles at Lucknow ; the arrangement is admitted to be inconvenient, and may with advantage be reconsidered.

28. If a college, situated within the local limits of a University, desires for any special reason to apply for affiliation in another University, we consider that its application should be addressed, in the first instance, to the local University, and that the application should not be granted unless with the consent of both Syndicates and the sanction of the Government of India.

PROPOSALS FOR NEW UNIVERSITIES.

29. It has been represented to us that the burden of our examination system may be reduced, or at least more wisely distributed, by encouraging the multiplication of teaching Universities. In the course of our inquiry at Madras, the claims of Bangalore, Trichinopoly, and Trivandrum were placed before us in this connexion. We are not satisfied that any of these proposed centres can be said to afford an adequate basis for a new University. We shall have to submit proposals for many changes in the constitution and working of existing Universities, and we recommend that the question of creating new Universities be postponed until those changes have been tested by experience.

30. The proposal to create a new University at Nagpur has received both official and popular support ; but in this case also, we find ourselves unable to recommend immediate action. There are two first-grade colleges at Nagpur and one second-grade college ; it is assumed that the college at Jubbulpore may be locally affiliated, and that the colleges of Indore and Rutlam may be included in the scheme. It is further suggested that the Berars will before long desire to have

a college of their own, and in this way a somewhat speculative total of eight or nine colleges is obtained. We have no desire to limit the aspirations of those who look forward to a great extension of higher education, but in the present Report we confine our attention to matters of immediate and practical interest.

31. The evidence we have obtained from Burma shows that the educational authorities of the province are not altogether satisfied with their present dependence on Calcutta. It is argued that if a University were established at Rangoon, new colleges would be founded for the study of Arts and Science, and that local colleges of Medicine and Engineering would free Burman students from the necessity of going to Calcutta or Madras for their professional training. The argument, so far as it goes, is perfectly sound, but, in view of the fact that Burma now possesses only two colleges, one first-grade and one second-grade, we are unable to submit any positive recommendation. At the same time we venture to hope that the project may continue to receive the attention of the Local Government, and of the wealthy and educated classes of the province.

32. In connexion with the Muhammadan Anglo-Oriental College at Aligarh, proposals have been put forward from time to time for the creation of a Muhammadan University. It does not appear that these proposals have received the support which would be necessary to give the scheme a practical character. And even if resources, adequate to the formation of a complete University, were forthcoming, it is for Government to decide as to the expediency of creating a denominational University. In the present circumstances of India, we hold that while no obstacle should be placed in the way of denominational colleges, it is important to maintain the undenominational character of the Universities.

CONSTITUTION OF THE UNIVERSITIES.

The Senate.

33. The Senates of the three older Universities were, in their origin, intended to be bodies of persons qualified to advise and to exercise control in educational matters. But for some time past the notion has prevailed that a fellowship is a distinction which may be bestowed by way of compliment, without much regard to the academic qualifications of the recipient. The witnesses who have appeared before us are almost unanimous in holding that the existing Senates are too large, and that, if there is to be any improvement in the working of our Universities and colleges, steps must be taken to reduce the number, to raise the standard of qualification, and to secure more regular attention to University business on the part of those who are appointed Fellows.

34. Some witnesses would deprecate any attempt to deal with this matter directly by legislation; they would lay down rules in regard to future appointments, and trust to the lapse of time. We are convinced that if this course be taken, all hope of carrying out a systematic improvement in the present methods of teaching and examination must be postponed for a considerable number of years.

Other witnesses have advocated a bolder course; they contemplate the repeal of the Acts of Incorporation and a reconstitution of all the Universities. We do not think it necessary to break so suddenly and so completely with the past. The traditions of Indian Universities are not of long standing; but the existing Acts, with their lists of eminent names, form a link of connexion between the administrators of to-day and their predecessors; and we have come to the conclusion that acknowledged defects of our University institutions may be removed by amending legislation of a general character.

35. We propose therefore that the Senates should be reformed in accordance with the following scheme:—

The authority by which Fellows are now appointed should be empowered to nominate a new Senate. The new governing body may be recruited mainly or partly from the existing Fellows, but the number will not exceed a maximum, to be

fixed by statutory rule. We suggest that 100 would be a suitable maximum for the three older Universities, unless Madras should find a smaller number to be sufficient, and that 60 would be sufficient in the cases of Allahabad and the Punjab. These numbers do not include *ex-officio* Fellows.

36. Power should also be taken for the constituent authority to distribute the Fellows according to Faculties. At present the distribution is made by vote of the Senate, and the results are not altogether satisfactory. There is not much difficulty in assigning Fellows to the three professional Faculties; but the Faculty of Arts is too numerous and too miscellaneous. We propose that there should be in each University a Faculty of Arts, representing Languages, Philosophy, and History, and a Faculty of Science, representing the observational and experimental sciences. It may be admitted that an exact logical division between Arts and Science is not possible. Mathematics, for example, may continue to form part of the course of study in Arts, while at the same time the subject is also a necessary element in some of the courses to be grouped under Science. The proportionate numbers to be assigned to the several Faculties may not be the same in all cases, but we consider that when 100 is the maximum, Arts may have 30 Fellows, Science, Law and Medicine 20 each, and Engineering 10.

37. In the three older Universities permission to elect Fellows has been conceded to certain graduates; and in each of the two junior Universities the Act of Incorporation provides for the election of Fellows by the Senate. These privileges are highly valued, and we propose that they should be retained and confirmed by statute. The constituent authority may be empowered to appoint to the new Senate a suitable number of existing elected Fellows, not exceeding one-tenth of the whole, and it may be arranged that Fellows of this class shall vacate their places in such a way as to secure regular annual elections for the future. Power may be taken to introduce election by the Senate in the older Universities, or election by graduates at Allahabad and Lahore.

38. In some cases, and especially in the Punjab University, the list of *ex-officio* Fellows seems to require revision. We consider that the Director of Public Instruction should be, *ex-officio*, a Fellow and a member of the Syndicate. In the University of Calcutta the Lieutenant-Governor of Bengal should, we venture to suggest, be made Rector of the University, with precedence next to the Chancellor but without prejudice to the right of the Vice-Chancellor to preside in the Senate.

39. We propose that appointments to the new Senates should be for five years. On the first nomination, the constituent authority may be empowered to impose a time limit, not exceeding five years, and in this way it may be arranged that in each year one-fifth of the appointed and elected Fellows shall vacate their places. All appointments should be made on the clear understanding that the person appointed undertakes to attend the meetings of the Senate. If attendance is required, it is only right that the travelling expenses of members residing at a distance should be paid. Power may be taken to remove the names of those who, by change of residence or otherwise, have ceased to be able to take part in University business.

40. Power should, we think, be taken to regulate elections, and, in the case of election by graduates, to prescribe, either generally or in reference to any particular election, the qualifications of the electors and of the persons to be proposed as candidates. This power would enable the constituent authority to direct, *e.g.*, that the person to be elected should be a graduate in Medicine, and that the election should be by graduates in that Faculty. The electors should be graduates of five years standing, and the persons elected should be graduates of ten years standing. We have considered proposals to limit the right of election to graduates holding the higher degrees; but we prefer to leave it, on the conditions above suggested, to the general body. There should also be a power to cancel the election of a candidate if the constituent authority is convinced, after due inquiry, that improper canvassing has been used on his behalf.

41. Existing Fellows, not appointed to the Senate, should, in our opinion, be permitted to retain the honorary distinction of a fellowship. It was conferred upon them for life, and inasmuch as no definite duties have hitherto been attached to it by law, they are entitled to argue that no cause has been shown

for taking it away. Where the Fellows have obtained the right to elect a member of a local Legislative Council, or of any Municipal body, all existing Fellows may continue to vote in the election. Existing Fellows who are not in the Senate should of course be eligible to become members, either by appointment or by election. Power may be taken to appoint Honorary Fellows in the future; the distinction might appropriately be conferred on benefactors and others who have deserved well of the University.

42. We consider it most important that no fellowship should in future be conferred merely by way of compliment. In every case there should be some good academic reason for the appointment, and the Senate as a whole should be so composed as to give due weight to the opinion of the following classes of persons:—

(*a*) University and college teachers, especially heads of colleges. This class has, we think, the first claim to consideration.

(*b*) Persons distinguished by their attainments in any branch of learning and qualified to take part in University business.

(*c*) Representative members of the learned professions. It is very desirable that the Senates should be strengthened by the presence of professional gentlemen of high standing, especially those who received their education in this country.

(*d*) Representatives of Government. Under this head we may venture to observe that the Indian Civil Service is largely recruited from the Universities of the United Kingdom, and that many of its junior members possess high academic qualifications. If such officers were appointed to the Senates, and enabled to attend regularly to their University duties, they would, we believe, render good service to the cause of education.

We conceive that a Senate, reconstituted as above proposed, will be adequate to the duties imposed upon it. It will be large enough to secure formal debate and the expression of a considered opinion on questions of principle. At the same time it will be, in the main, a body of experts, and it will be protected against the incursion of voters who are brought together in large numbers only by the prospect of an election or by a debate on some question which has been agitated out of doors.

43. No voting by proxy should be permitted in the Senate. We have considered a proposal to require a two-thirds majority for the repeal or alteration of a Regulation, but inasmuch as the sanction of Government is required in such cases, we do not think the proposed rule necessary.

FACULTIES.

44. The arrangement of Faculties is a matter in which it is not necessary to insist on uniformity. If Arts and Science be separated in all cases, there will be the five Faculties of Arts, Science, Law, Medicine, and Engineering. It has been suggested that Science and Engineering may be combined in one Faculty, and we see no objection to this proposal, if any of the Universities should think fit to adopt it. Teaching may be fitly assigned to the Faculty of Arts, and Agriculture to that of Science.

45. In the Punjab University there is a Faculty of Oriental Learning; in the courses of study prescribed for the degrees in that Faculty, English is only an optional subject. Proposals for the constitution of an "oriental side" have been put forward in other Universities. We are not satisfied that the Punjab system has answered the purpose of its introduction, and, so far as other Universities are concerned, we should deprecate any proposal to confer degrees (as distinguished from titles) without English. Even candidates in the examinations for titles may well be encouraged to add English to their acquirements.

46. Our attention has been called to the Faculty of Commerce established in the new University of Birmingham, and it is suggested that the importance of commercial education should be more directly recognized by the Universities. There is, we believe, a great and growing demand for good commercial instruction; and if the Universities, in co-operation with the Chambers of Commerce,

can meet the demand, we think they should be willing to do so. The question of granting a degree in Commerce is a novel one, and we should prefer not to raise it at present.

47. It has been represented to us that the circle of the sciences is not complete without Theology and that, while adhering to the principles of toleration and respect for all the great religious systems of India, we should make provision for a School or Faculty of Theology. This proposal was supported by a few of the Christian witnesses who gave evidence under this head. They appeared, however, to regard the question from very different points of view. To some it meant only a recognition of comparative religion as one of the subjects of University study; to others it seemed to mean the recognition of a course of theological study under any central board instituted for the purpose of preparing candidates for theological degrees, and the conferring of such degrees through the agency of the Theological Faculty that would thus be created. Several of the Christian witnesses were, on the other hand, opposed to the proposal, which they regarded as unsuited to the circumstances of Universities which were precluded from taking any cognisance of the religious belief of their students. They held that theological study should be associated with religious faith and life and could have no fitting place in a University constituted like the present Universities of India. This was also in substance the view of the representatives of other religions who touched upon this question in their evidence. They objected, not to the recognition of Natural Theology as a subject of University study, but to the introduction of the theology of any one religion into the curriculum of the University.

The conclusion therefore to which the evidence has led us is that it is neither practicable nor expedient to make provision for a Faculty of Theology.

Boards of Studies.

48. In the constitution of Boards of Studies there is at present a diversity of practice. Madras has 14 Boards, appointed by the Syndicate from among the Fellows, and empowered (*a*) to submit nominations of examiners, (*b*) to recommend text-books, (*c*) to report on matters referred to them. At Bombay there are no Boards of Studies. Calcutta has 10 Boards, one for each group of studies now included in the Faculty of Arts. Allahabad has 10, one for each group of studies in Arts, one for Physical Science, and one for Drawing and Surveying. In the Punjab University there is a Board of Studies for each Faculty; the members of the Syndicate representing any Faculty form the Board, the members of the Science and Engineering Faculties forming one Board. The duties of the Boards are (*a*) to recommend text-books, (*b*) to frame sample question papers for the guidance of Examiners, (*c*) to consult with specialists and to advise on questions referred to the Faculty for opinion, (*d*) to revise courses of study, (*e*) to consider and determine objections raised by candidates or by the Principal of any recognized institution to questions set at any examination.

49. Without insisting on uniformity, we suggest that, if the Senates are reconstituted as we propose, each Senate, subject to proper rules of nomination and election, may have power to appoint such Boards of Studies as it thinks necessary from among its own members. There are some complaints as to the manner in which the Boards perform their duties in regard to text-books. We are of opinion that no book should be recommended by a Board, unless on the written report of some competent person who has read it. Questions relating to examination papers may be referred to the Board; but we doubt the wisdom of the Punjab rule which directs that all objections are to be so referred. Such objections ought, we think, to be laid before the Syndicate, which should be free either to dispose of them, or to refer them to the Board. We also think it doubtful whether examiners ought to be assisted or embarrassed by sample papers of questions.

The Syndicate.

50. The executive government of each University is vested in a Syndicate, consisting of the Vice-Chancellor and a small body of the Fellows—8 at

Madras, 14 at Bombay, 10 at Calcutta, 19 at Allahabad, 20 at Lahore—the elected members being chosen in certain proportions by the Faculties (at Allahabad by the Senate). Annual election is the rule, except at Allahabad, where the term is three years. There are no *ex-officio* Syndics, except at Allahabad, where the Director of Public Instruction and seven heads of colleges are appointed *ex-officio*, and the remaining places are filled by limited election. At the other Universities the Director of Public Instruction is usually elected to the Syndicate as one of the representatives of the Faculty of Arts. At Calcutta and Madras, no Fellow is eligible unless he resides in or near the University town. We recommend the abrogation of this rule; a Principal or Professor of an outlying college ought, we think, to be eligible, provided that he can undertake to attend the meetings regularly.

51. We have not thought it advisable to frame a constitution such as might be applied to all five Universities. But in view of the great importance which attaches to the Syndicate as the executive authority of the University, we have anxiously considered the numerous proposals and suggestions laid before us, and have come to the following conclusions :—

(*a*) We are of opinion that the Syndicate should not be a large body. We would place the minimum number at 9, including the Vice-Chancellor, and the maximum at 15.

(*b*) We propose that the Director of Public Instruction should be *ex-officio* a member and Vice-Chairman of the Syndicate. Except in this case, we are not in favour of *ex-officio* appointments.

(*c*) The evidence submitted at all the University centres has shown clearly the necessity of defining the constitution of the Syndicate. Many of the witnesses submitted outlines of a new constitution for the body, all of them based upon the principle that a Committee of the Senate which exercises such large executive powers as have always been, and must always be, entrusted to the Syndicate, should be truly representative of the colleges and the professorial staffs by which the practical work of the University is carried on. The evidence of these witnesses also assumed that the only practicable line of University reform was that which would secure a closer relationship between the colleges and the administration of the University.

While it might be hoped that under the new constitution of the Senate which we have proposed the former method of unrestricted election of members of the Syndicate by the Senate or by the Faculties would secure the result desired, it appears to us that, in framing a constitution for the Syndicate, it is necessary, in view of the overwhelming weight of evidence submitted, to lay down a rule which will secure that form of constitution which is held by so many experienced authorities to be necessary.

The circumstances of the various Universities in respect of the number and distribution of their colleges are, however, so different that it does not seem possible to frame any simple system of college representation, as advocated by a number of witnesses, that would be applicable to all.

We believe, however, that the same result will be secured by the following regulation :—the Syndicate to be elected by the Senate, the Syndics being chosen, subject to proper rules of nomination and election, in certain proportions to represent the several Faculties; the representatives of each Faculty to include one or more Heads or Professors of colleges according to the following rule: where not more than two members of the Senate are elected to represent a Faculty, one at least shall be a college Head or Professor; where more than two are thus elected, a majority at least shall be college Heads or Professors in that Faculty.

This rule is not intended to limit the proportion of the teaching element in the Syndicate. The proportion laid down may be exceeded, but the minimum secured by the rule must be insisted upon.

(*d*) If legislation is undertaken, we propose that the Syndicate should be recognised by law as the executive authority of the University

and that some of its powers should be exercised independently of the Senate. It is, we think, undesirable that (*a*) appointments made by the Syndicate, (*b*) decisions in regard to affiliation and disaffiliation of colleges, and (*c*) exemptions from examination rules, should be reviewed in the Senate.

Registrar and Staff.

52. The registrarship is sometimes held in combination with the principalship or with a professorship in the Government college at the head-quarters of the University. In the Punjab University it is combined with the principalship of the Oriental College.

We propose that in each University the Registrar should be a whole-time officer; that he should be appointed by the Senate, under proper rules of appointment and with the approval of Government; that his service should be pensionable; and that his pay should be such as to secure the services of a person of high academic standing. In case of misconduct or neglect of duty, he should be liable to dismissal by the Syndicate, with the sanction of Government. We suggest that the power of dismissal should be vested in the Syndicate which is a small body and better qualified, in our opinion, than the Senate can be, to decide any disputed question of fact. When the Registrar is absent on leave, the Syndicate should have power to make an officiating appointment. No officiating appointment should be reviewed or discussed in the Senate.

53. The duties performed by the subordinate staff in connexion with examinations, are to some extent of a confidential nature. It is desirable that the staff should be permanent, and the conditions of employment should be fixed by the Syndicate with due regard to this consideration.

UNIVERSITY AND COLLEGE LIBRARIES.

54. Of the present University libraries there is not much to be said. The library at Madras appears to be entirely neglected. Bombay has a good collection of oriental and other books; but the library is little used by graduates and hardly at all by students. Calcutta has a library, and moneys have been granted for the purpose of making it "supplementary to other libraries in Calcutta." It is open to Fellows and to persons permitted by the Syndicate to use it for the purpose of literary research. The Allahabad University has no library. Lahore has a not very large University library.

To form vast collections of books, such as the Universities of Europe and America now possess, would involve an expenditure far beyond our resources. Benefactors may in time arise to do for the Indian Universities what Sir Thomas Bodley did for Oxford.

We attach great importance to the formation of good reference libraries in connexion both with Universities and colleges. In a college where the library is inadequate or ill-arranged, the students have no opportunity of forming the habit of independent and intelligent reading.

GRADUATES OF THE UNIVERSITY.

55. It is generally agreed that there ought to be in each University a register of graduates: that an annual fee should be paid by those whose names and addresses are entered in the register: and it is suggested that each registered graduate should receive a copy of the Calendar. We support these proposals, and we recommend that the Senate should be empowered to remove from the register the name of any graduate convicted of an offence which renders him unfit to be a member of the University. It seems reasonable that the consent of two-thirds of the Fellows present and voting should be required for this purpose. Where electoral rights are conferred on graduates, persons whose names are not on the register should not be allowed to vote.

56. Some proposals have been laid before us for the establishment of a convocation of graduates, but we think it premature to submit any recommendation on this point.

AFFILIATED COLLEGES AND INSTITUTIONS.

AFFILIATION RULES.

57. Each University draws the candidates for its examinations from colleges and other institutions specially connected with itself, but no attempt was made on the passing of the Acts of Incorporation or since, to give precision to the term "affiliation" or to define the relations between the University and the colleges. In the Punjab University there are no rules of affiliation, and in the other Universities there can be little doubt that the privilege has been granted too easily. We recommend that new affiliation rules may be framed for each University, and that the rules should be so framed as to secure—

1. That no institution shall be admitted to affiliation unless on the fullest information. It is not sufficient that the founders or the managing authorities of a proposed college should submit a statement to the Syndicate; there ought, we think, in each case, to be an independent report by the Director of Public Instruction or some other competent authority, showing why the new institution is required and what are the guarantees for its financial stability.
2. That no institution, once admitted, be allowed to fall below the standard of efficiency required for affiliation. Cases have been brought before us of colleges which have obtained affiliation on a statement showing adequate strength in the teaching staff, and have afterwards lost some of their best Professors, and filled their places with less satisfactory teachers. If such falling off is to be prevented, the Syndicate must be required to satisfy itself from time to time that the standard of efficiency is maintained. Something in the nature of regular supervision is required, and the evidence given before us shows that, if the Syndicate performs its duty with tact and consideration, such supervision will not be objected to, except, as one witness remarked, by those who need it most.

58. In many, perhaps in most cases, the Syndicate should be able to obtain full information in regard to the colleges from the Director of Public Instruction. We do not, therefore, think it necessary to suggest that the University should appoint an Inspector or a Board of Inspectors for this purpose. But it would be a great advantage to the colleges if members of the Syndicate were to make a practice of visiting the colleges within their jurisdiction. Such visits would serve to remind the authorities and the students of each college that they form part of the larger University world; and they would also furnish the Syndicate with a large body of experience which would be of great value when questions concerning the colleges come up for decision. The Syndicate should have power to order a formal inspection of an affiliated college at any time.

59. It has been argued before us that University supervision of colleges is unnecessary, and for this opinion two reasons are given. In the first place, it is said that the University can disaffiliate a college which is proved to be inefficient. To this we reply that disaffiliation is an extreme penalty, rarely inflicted. Complete inefficiency, such as would justify the withdrawal of affiliation, may be the result of a long process of deterioration. Why not arrest the process at the outset by proper supervision and care?

It is also said that a college which is inefficient will be punished by losing its students. We are not satisfied that the students can or should be regarded as competent judges of the work of their teachers. They are apt to judge their college, not by its real efficiency, but by its success in examinations or other equally inconclusive tests.

60. We proceed to consider the points to which the University should direct its attention before it resolves to grant, or to continue, the privilege of affiliation. Some of these points are provided for in existing rules of affiliation; but in each University there is scope for new and more comprehensive regulations, setting out fully the standard to which the University requires its constituent colleges to conform.

GOVERNING BODY OF A COLLEGE.

61. If a college is to be permanent, it ought not to be dependent on the interest or the caprice of an individual. We have no wish to do any injustice to

private colleges, and we are aware that in some cases these institutions owe their origin to the desire of promoting a particular kind of education and not to the hope of gain. But if any surplus remains after providing for salaries and other necessary expenses, it should be spent in improving the college ; it should not be added to the gains of the proprietors. There should in our opinion be a properly constituted governing body for each college.

Teaching Staff of a College.

62. The teaching staff must be adequate to the courses of study to be undertaken.

A college council or common room, at which the Principal and Professors meet to arrange their work, and to compare notes about their pupils, appears to us to be almost a necessary part of a teaching college, but a number of colleges in India have no such institution.

Buildings, Furniture, etc.

63. We find that in many places colleges have been established in private houses, so surrounded by other buildings that there can be no adequate provision for the health and comfort of the students. Large classes are crowded into small rooms ; there is sometimes a deficiency of light ; and the sanitary arrangements are not always satisfactory. In great cities the high price of land is a great obstacle to improvement ; but we trust that the Syndicates will use every effort to secure that all their affiliated colleges are decently and suitably housed.

Where space permits, it is very desirable that the Principal and some of the Professors should reside in or quite near the college.

64. The Principal of the Calcutta School of Art has called our attention to the bare and uninteresting aspect of our college class-rooms. Mr. Havell suggests that, without incurring any great expense, the colleges and their surroundings might be made more dignified and more attractive than they now are. In English schools much has been done of late years to brighten the appearance of the class-rooms. Both teachers and scholars learn to take pride in rooms which are properly furnished and kept ; and we commend Mr. Havell's suggestion to the consideration of the colleges.

Discipline and Residence of Students.

65. We do not find it necessary to make any definite recommendation in regard to discipline. Indian students are rarely guilty of disorder ; but they need close and friendly supervision, and each college has to consider how the need is to be met. In the Muhammadan Anglo-Oriental College at Aligarh we found a somewhat elaborate system in operation. The students are under the eye of Proctors and Sub-Proctors who look after discipline and conduct. At the same time they are themselves allowed to take part in maintaining order. The results of the system appear to be good, and we commend it to the study of other residential colleges.

66. The University of Madras has recently made a regulation in regard to the residence of its students, and we think it very desirable that all the Universities should deal with this very important matter. Students should be required to reside (*a*) with parents or guardians, (*b*) in lodgings approved by the University or by the college to which they belong or (*c*) in a hostel. As the term has been somewhat loosely used, we may define "hostel" as a place suitable for the residence of students and under University or college supervision. It is very desirable that one or more of the members of the college staff should reside in or quite near the hostel, where there is one. The superintendent should not be an upper servant, but a person able to exercise some authority over the residents. If it is not possible to give each student a room to himself, the sleeping rooms should be large dormitories, which are more easily controlled than cubicles holding two or three. We observed in some hostels that the men seemed to read much at night, and that the lamps used were of an inferior quality.

67. Some witnesses have spoken of making colleges entirely residentiary, so that students would not be allowed to live even with their parents. Such a

proposal goes far beyond our resources, and it would meet with the disapproval of many who think that home life is not incompatible with an adequate measure of college discipline.

68. The impression we received from our visits to hostels is that the movement in favour of residential colleges deserves encouragement and also requires some control. We find that some hostels admit students from colleges other than those to which they are attached. Schoolboys and undergraduates are sometimes allowed to live together. These customs we are disposed to deprecate. In other hostels the discipline is not satisfactory. We have seen cubicles hardly fit for occupation, and some hostels are untidy and ill-managed. We consider that hostels attached to a college should be directly under the control of the Principal, and that each hostel should be reserved for members of the college, to the exclusion of outsiders. In course of time we trust that the provision of quarters for all students not residing with parents or guardians may be made one of the conditions of affiliation, at least for new colleges. Hostels ought not, speaking generally, to be built at a distance from the colleges to which they belong; or in an environment that is not clean and respectable.

Courses of Study.

69. We recommend that affiliation should be granted, and from time to time renewed, not in general terms, but with a more exact reference to the subjects and courses of study for which the college can make adequate provision. If a college is affiliated "up to the B.A.," that is no reason for permitting it to teach history without a library, or to establish science classes in which no student has any opportunity of handling apparatus or of doing any practical work.

In considering whether the provision which a college proposes to make for a particular subject is adequate, the following are the points to be taken into consideration :—

(1) Whether the college can provide an adequate number of lectures. In many cases it may be found that the "adequate number" is considerably smaller than the number now given. We have been told that the student in a Scottish University may obtain his degree after attending about 700 lectures, and that the Indian student often attends as many as 3,000. The quality of lectures cannot be prescribed by University order, but we suggest that efforts may be made to discourage the kind of lecture which consists merely in dictating notes. The object of the lecturer should be to stimulate and guide the minds of his class; not to dispense them from the necessity of reading their books and thinking for themselves.

(2) Whether the college provides its students with adequate tutorial assistance. Few students can profit by books and set lectures, unless they have the assistance of a teacher who shows them how to solve difficulties, and sets them exercises. Assistance of this kind is given in many colleges; we note the absence of any provision for it in others. It ought in all cases to be regarded as an essential part of college work. Where a college possesses a body of Fellows, like the *Dakshina* Fellows in the Bombay Presidency, it is desirable that such Fellows should give a part of their time to tutorial work.

(3) Whether the students have access to a library and to laboratories, etc., where required. The student should spend only a limited number of hours per diem in class; during the rest of his working time he should be reading, writing and inquiring for himself—not committing his lecture notes to memory.

70. The certificate that a student has pursued a regular course of study should be so framed as to show that he has gone through a course of study approved by the University as above described. All rules which require merely a percentage of attendance at lectures should be recast or abolished.

Fees.

71. The general principles which have been approved by the Secretary of State and the Government of India in respect of advanced education are to the effect

that all institutions maintained by the State must refrain from competing with aided or private institutions by charging lower fees, and that the Departments of Public Instruction and the managers of private institutions should co-operate to raise fees gradually and cautiously in all colleges. This policy aims at rendering the institutions maintained or aided by the State less and less dependent on assistance from public revenues, and is also designed to secure greater efficiency and success in private institutions. The higher forms of education can only be provided at great expense, and teaching, such as is given in well-equipped and well-staffed collegiate institutions, depends to a great extent everywhere, and particularly in India, where many of the students at colleges are poor, on the existence of large private endowments, or on a liberal Government grant. Two primary considerations ought to be observed in the settlement of fees: firstly, that they must not be pitched so high as to check the spread of education, and, secondly, that they must not be fixed so low as to tempt a poor student of but ordinary ability to follow a University course which it is not to his real interest to undertake. The first principle needs no argument to support it, but the second is, in our opinion, equally important in India. The work of collegiate education has been much impeded by the attendance at colleges of students whose abilities do not qualify them for University education. Low fees and free studentships, granted solely on account of poverty, have contributed to this result. No poor but really able student should be excluded, by reason of his poverty, from the advantages of the highest education, but these should be secured for him not by charging nominal fees, or by the indiscriminate bestowal of free studentships, or the establishment of free colleges, but by a comprehensive and liberal system of scholarships. Scholarships should be provided by the State open to general competition as the result of University examinations, and tenable at any affiliated college, as well as by the managers of aided and private institutions for students at their own colleges. If free studentships are permitted, they ought not, in our opinion, to exceed 3 per cent. of the total number of students on the roll.

72. A further consideration is that no college under private management should be required to levy fees at the same rate as is in force in a neighbouring Government college. The circumstances of the inhabitants of different parts of the country within the area of influence of the different Universities vary considerably, and it is for this reason impossible to suggest a minimum scale of fees which should be made applicable to all privately managed colleges. The evidence given before us showed that the present practice varies greatly in different provinces. In the Madras Presidency a minimum rate of fees was prescribed at aided institutions for about fifteen years, but it was abolished by the Local Government at the end of 1891. The opinions of witnesses were divided as to the effect of this change of policy. Some witnesses attribute a decline in discipline and in the tone of education to the competition between different institutions which has, they allege, resulted from it: others contend that it was not possible to secure that the managers of aided institutions realized from students the fees which they entered in their accounts as paid, and that, as a matter of fact, false statements of the amounts realized were not infrequently furnished by them. The existing educational rules in the Madras Presidency fix standard rates of fees to be levied at colleges under the management of Government, or a Municipal Council, or a Local Board. Fees at private institutions are left to the discretion of the managers, but the rules provide that, in estimating the fee income of an institution for the purpose of passing grants under the grant-in-aid code, such income shall be calculated by applying standard rates to the numbers on the rolls in each term with a reduction of ten per cent. The income of a college is calculated on the assumed receipts from fees, and colleges overstating their actual receipts from fees are liable to a reduction of the grant towards their expenditure. In his last report the Director of Public Instruction states that the average fee in Government colleges was thirty per cent. above that in aided colleges. In the Bombay Presidency no rules exist regarding the amount of fees to be levied at aided colleges: the fees at aided colleges appear to be about two-thirds of the full fees levied at Government colleges. In Bengal the rate of fees varies very largely. At the Presidency College at Calcutta the fees for a year amount to Rs. 144 in most cases—a rate which appears to us to be about as high as can be appropriately levied in India. In his latest report the Director of Public

Instruction stated that the fee rate at the great majority of the unaided colleges under native management is Rs. 3 a month for the F. A. classes and Rs. 4 a month for the B. A. classes, and that in the missionary colleges, as in several of the Government colleges in the mufassal towns, it is generally Rs. 5 or sometimes Rs. 6 a month. The Department of Public Instruction exercises no control over the numerous unaided colleges in Bengal, and the University, which grants affiliation, has not attempted to regulate the fees levied at them. The average fee realized at the twenty-one unaided colleges in Bengal was in 1900-01 Rs. 43-0-4—a sum which is about equal to the cost of the education of a boy at an elementary board school in England. The existence of affiliated colleges in the same town, with largely varying fees, has, as several witnesses have stated, led to most undesirable competition and underselling, which has, in some instances, been carried on by resorting to very discreditable devices. In the United Provinces and the Punjab trouble of this kind does not appear to have arisen to any serious extent, and in both these provinces the Department of Public Instruction requires that the rates of fees in aided institutions must not be less than 75 per cent. of the standard fees which are charged in the corresponding institutions managed and maintained by Government.

73. The evidence placed before us has shown that if a minimum rate of fees is not enforced, the standard of education and discipline is lowered. We were not satisfied with the state of some of the aided or even of some of the Government colleges which we inspected, but in the unaided colleges, where the smallest fees are levied, the conditions were far worse. At some of the unaided colleges we found that the Professors and teachers were inadequately paid ; that the buildings and class-rooms were unsuitable; that the educational appliances for general teaching were inadequate; and that the apparatus and laboratories for science and other special teaching were of the most primitive description, and not even up to the requirements at an ordinary board or primary school in England, or in Europe generally. These results must be mainly traced to the undue competition among a number of colleges which are driven, in order to attract students, to charge very small fees. We cannot regard colleges such as these in their present condition as fit to be part of the University, and, it is our opinion that they must be required to improve within a reasonable period, or, failing to do so, must be disaffiliated. We consider that the first thing towards improvement must be a raising of the present very low rate of fees now charged at some colleges. We therefore recommend that the Syndicate of each University should, in consultation with the managers, prescribe a minimum rate of fees for the colleges affiliated to it, after taking into consideration local circumstances, the demand for higher education, and the ability of the class of students who are likely to attend the institution to pay adequate fees for such instruction. This rate will be primarily applicable to the circumstances of colleges which obtain no pecuniary aid from Government. The State has it in its power to regulate the rate of fees at both Government and aided colleges, and should, in our opinion, fix the fees at both these classes of colleges at a rate higher than the minimum determined by the University, the rate at the former being necessarily fixed higher than at the latter class of college.

74. In making this recommendation we have not overlooked the contention of some witnesses that the introduction of any scale of minimum fees in colleges may be followed by attempts at evasion, and even by the preparation of false returns of fees and similar practices. We are loth to believe that any body of educated men avowedly engaged in the high aim of working for the moral and intellectual advancement of the people of India would condescend to such practices, and we prefer to rely on the honour of the authorities of colleges to do their utmost to help the Universities in maintaining all such standards as may be laid down. If, however, our anticipations in this respect are not realized, the Universities will find a remedy ready at hand. At the inspection of colleges under the orders of the Universities, the institution of which we have suggested, particular attention would naturally be paid to the financial working and results of each institution. If the inspection is as searching as it ought to be, any irregularities in the matter of fees must be brought to light, and the University will be in a position to apply a penalty which should effectually prevent such malpractices.

75. Among the colleges now affiliated are some which are maintained by rich benefactors on condition that no fees are charged, and others, the promoters of which are induced by religious, patriotic or philanthropic motives to give their services as teachers free or for very small remuneration, with the express object of reducing the fees payable by students to the lowest point possible. We consider that cases such as these might be specially treated by the Universities, and that, provided that the University is satisfied that such an institution is properly furnished with teachers; adequately equipped with teaching apparatus; is in receipt of no grant-in-aid from the State; and that the resources available to the promoters are sufficient to maintain it in full working order for a reasonable period, it should be exempted from the strict operation of the rule.

In the case of such exceptional institutions a limit should be placed on the number of students admitted on payment of no fees or on reduced fees below the minimum fee laid down by the University, such limit to be based on the strength of the teaching staff and the facilities for instruction.

Transfer of Students.

76. In several Universities we find that students have been allowed to migrate from one college to another at will. Where this is the case, it is not surprising to find that the students are said to be "masters of the situation." If the teaching or the discipline of a college does not suit their ideas, they can go to another. The resulting evils are so serious that in the Punjab, where no transfer rules have been framed, four leading colleges have framed voluntary rules, which they agree to observe, as between themselves.

In the case of Government and aided institutions, the Education Department can make and enforce proper transfer rules. If the University is satisfied with the Government rules, it should require unaided affiliated institutions to observe them as a condition of their affiliation. In so far as the Government rules are insufficient, the University should itself make transfer rules, as has been done at Madras and Allahabad.

No transfer should be permitted in the middle of a term, or indeed in the middle of a course of study, unless for special reasons, to be recorded in writing by the college authorities, and reported to the Syndicate.

We are of opinion that fees should be paid terminally in advance, and that the question of the amount, if any, to be refunded on the transfer of a student should be decided by the college.

College and School.

77. Several witnesses have laid emphasis on the expediency of marking more clearly the dividing line between school and college life. Where a college has grown out of a high school, we think it important that the college classes should be conducted in a separate building and under separate management. Our so-called second-grade colleges are for the most part only high schools which have added two college classes to their curriculum, in order to keep their pupils two years longer. We recommend that the Universities should decline to affiliate any new second-grade college. In the case of those now affiliated, we consider that the aim of Government and of the University should be to effect gradual separation, so that University students should receive their education in colleges properly so called. Those second-grade colleges which cannot hope to rise to the first grade, ought, we think, to revert to the position of high schools. It may be left to each University to determine the period within which this change can be effected. We suggest that when a second-grade college is inadequately equipped or sends up a small number of students for the Intermediate Examination, it may be disaffiliated at comparatively short notice, and that the stronger second-grade colleges may be required to choose between the status of a college and that of a school within some reasonable limit of time, and with due regard to existing interests. In this as in all cases, the question of creating a new first-grade college must be decided in the first instance by the Syndicate, in accordance with the rules of affiliation which we have already recommended.

78. Considerable importance attaches to the rules under which schools are recognized by the Universities, and permitted to send up candidates for the Entrance or Matriculation Examination. If the School Final Examination is in future accepted in whole or in part, as a substitute for Matriculation the Universities will not be called upon to consider any question relating to the recognition of schools. As things now stand, it is admitted that the Universities have no adequate machinery for ascertaining the condition of schools, and at Calcutta the Syndicate has sometimes insisted on recognizing new venture schools, without due regard to the interests of sound education and discipline. We recommend that in this matter the Universities should be guided by the Education Department, to which the inspection of schools more properly belongs. The schools recognized by the University should be—(*a*) schools within its local limits, recognized by the local Education Department in accordance with the departmental rules for the time being in force, and (*b*) schools in Native States which are certified by the Government of the State in which they are situated to be organized and conducted in general accordance with the educational rules in force in that province of British India with which it is politically or academically connected.

If the rules we recommend in regard to affiliated colleges and recognized schools are to be regularly enforced, the rules in regard to the admission of "private students" to University examinations must be revised and strengthened.

College Life.

79. Some witnesses have complained that there is too little direct friendly association between Professors and students and even between the students themselves. This is happily not always so; but there are everywhere obstacles to be overcome before there can be genuine friendship between Professors and students. Every encouragement should be given to societies and pursuits which bring the men together out of class, and in this connexion much importance attaches to games which interest men in healthy outdoor exercise, foster college patriotism, and often provide a bond of common interest between the European Professor and his pupils.

80. The Universities may, we think, do something to create a true University life, especially in the great towns, by providing places and occasions for bringing men of different colleges together. Thus, the University might establish a reference library, with reading and conference rooms for Professors, and rooms in which students might read and hold debates. Such an institution, whether established by University or college action or by private effort, would bring Professors and students into contact with their academic neighbours, of whom, under existing conditions, they see very little.

TEACHING.

81. In a rightly governed University, examination is subordinate to teaching; in India teaching has been made subsidiary to examination.

The lectures which the student values most are those which aim only at selecting the points on which examiners are most likely to set questions; and the books which are most carefully studied are not those prescribed by the University, but abstracts and "keys" which present a bald outline of the original, together with notes on passages or phrases likely to be set. We consider that the use of keys ought in every way to be discouraged by college authorities, and we hope that University teachers will not lend themselves to a bad system by composing keys to books included in University courses.

Following what seems to us the natural order, we propose to consider what subjects are or ought to be taught in our colleges; we shall consider afterwards how the acquirements of our students are to be tested by examination.

82. The following statement shows in outline the subjects which form the courses of study for the Arts and Science degrees.

Entrance or Matriculation Classes in Schools.

The general subjects are—

(1) English.

(2) A second language which may be either (*a*) an Oriental or European classical language, or (*b*) an Indian or Continental European vernacular language.

(3) Elementary Mathematics.

(4) History and Geography.

In Madras and Bombay elementary Science is added. In Allahabad and the Punjab the option of a vernacular language is not given. In the Punjab the candidate may take up a fifth voluntary subject consisting of either a vernacular language, elementary Science or a second classical language; or if studying in the Science Faculty he may follow a special course consisting of English, Mathematics, History and Geography, Physics and Chemistry, and at his option one of the following: Botany and Zoology, Agriculture, Drawing.

Intermediate Course.

Calcutta.—Compulsory subjects:

1. English.
2. Second language.
3. Mathematics.
4. Physics and Chemistry.
5. History or Logic.

Candidates may also take up one of the following:

(*a*) Logic.
(*b*) History.
(*c*) Physiology.
(*d*) Sanitary Science.

Madras.—The following subjects are compulsory:

1. English.
2. Second language.
3. Mathematics.
4. Physiology or Physiography.
5. History.

Bombay.—The following subjects are compulsory:

Previous.	*Intermediate.*
1. English.	1. English.
2. Second language.	2. Second language.
3. Mathematics.	3. Mathematics and Physics.
4. History.	4. Logic.

Students for the Science degree are required to pursue the general Previous course and there is a special Intermediate course consisting of the following subjects:

1. English.
2. Mathematics.
3. Chemistry.
4. Physics.
5. General Biology.

Allahabad.—The subjects are divided into three groups of which candidates must take up the first and either the second or third.

Group 1.—English and a first course of Mathematics.

Group 2.—Logic, a second language, either History or a second course of Mathematics.

Group 3.—A second course of Mathematics and Physics and Chemistry.

A student intending to read for the degree of Bachelor of Science must study Physics and Chemistry in his Intermediate course.

Punjab.—

1. English.
2. Second language.
3. Mathematics.
4. One of the following:

(*a*) History.	(*c*) A branch of Physical or Natural Science.
(*b*) Philosophy.	(*d*) A third language.

A student following the Science course must take up the following subjects:

1. English.	4. One of the following:
2. Mathematics.	(*a*) Botany and Zoology.
3. Physics and Chemistry.	(*b*) Physiology.
	(*c*) Geology.

The second language is in general an eastern or western classical or modern European language. Madras adds an Indian vernacular, and the Punjab does not give the option of a European language.

Course for the Degree of Bachelor of Arts.

Calcutta.—There are two alternative courses, one of a literary and the other of a scientific character. The subjects in each are as follows:

A Course.	*B Course.*
1. English.	1. English.
2. Philosophy.	2. Mathematics.
3. One of the following:—	3. One of the following:
(*a*) Classical language.	(*a*) Physical Science.
(*b*) History.	(*b*) Biology.
(*c*) Mathematics.	(*c*) Geology.

Madras.—

1. English.
2. A classical, or a European or Indian vernacular language.
3. One of the following:
   (*a*) Mathematics.
   (*b*) Physical Science.
   (*c*) Natural Science.
   (*d*) Philosophy.
   (*e*) History.

Bombay.—

1. English.
2. Classical language.
3. History.
4. One of the following:
   (*a*) Language and Literature (English and a classical language).
   (*b*) Philosophy.
   (*c*) Mathematics.
   (*d*) Physical Science.
   (*e*) Natural Science.
   (*f*) Roman History, Law and General Jurisprudence.

Allahabad.—The subjects are divided into three groups:

Group 1.—English.

Group 2.—Philosophy, Political Economy with Political Science, Mathematics and Physics.

Group 3.—History, a classical language, and Chemistry.

Candidates must take up (*a*) group 1, (*b*) one subject in group 2, and (*c*) a subject in either group 2 or group 3.

Punjab.—There are, as in Calcutta, two courses, in one of which the second subject is literary and in the other scientific—

A Course.

1. English.
2. A classical language.
3. One of the following:
   - (*a*) A course of Mathematics.
   - (*b*) History.
   - (*c*) Philosophy.
   - (*d*) Physical or Natural Science.
   - (*e*) A second classical language.

B Course.

1. English.
2. A course of Mathematics or a branch of Physical or Natural Science.
3. One of the following:
   - (*a*) A course or a second course of Mathematics.
   - (*b*) A branch or a second branch of Physical or Natural Science.
   - (*c*) Philosophy.
   - (*d*) History.
   - (*e*) A classical language.

Course for the Degree of Bachelor of Science.

Calcutta.—

1. English—a short essay on some scientific subject.
2. Statics and Dynamics.
3. Physics.
4. Chemistry.

5 and 6. Any two of the following:

- (*a*) Physiology.
- (*b*) Botany.
- (*c*) Zoology.
- (*d*) Geology.
- (*e*) Mineralogy.
- (*f*) Hydrostatics and Astronomy.

Madras.—There is no separate Science degree.

Bombay.—Any two of the following subjects:

1. Mathematics.
2. Experimental Physics.
3. Chemistry.
4. Botany.
5. Zoology.
6. Animal Physiology.

7. Physical Geography and Geology.

Allahabad.—The following subjects are compulsory:

1. English.
2. Mathematics.
3. Physics.
4. Chemistry.

Punjab.—English and any one of the following subjects or groups of subjects:

1. Mathematics and Astronomy.
2. Physics and Chemistry.
3. Botany and Zoology.
4. Geology and Mineralogy.
5. Physiology.
6. Agricultural Science.

Course for the Degree of Master of Arts.

The subjects are everywhere the same, and consist of the following:

1. Languages.
2. History.
3. Philosophy.
4. Mathematics.
5. Physical or (except in the case of Allahabad) Natural Science.

In Calcutta and the Punjab the candidate may take up one or more of the above subjects before proceeding to the degree; in Bombay and Allahabad only one; in Madras one or more, but not more than one in a year.

The language subject includes the following: Calcutta, English (for those whose vernacular is not English) or a classical language; Madras, a classical language or a group of Indian vernacular languages; Bombay, English with one or more classical or European or Indian vernacular languages; Allahabad and the Punjab, English or a classical language.

Course for the Degree of Doctor of Science.

The Universities of Calcutta, Allahabad and the Punjab prescribe a further course for the degree of Doctor of Science.

We will in the first place consider the teaching of the various subjects included first in the Arts and then in the Science course.

ENGLISH.

83. The declared object of the policy which led to the establishment of the Indian Universities was the extension of European knowledge by means of the English language in the higher branches of instruction. The proper teaching of English must for this reason be regarded as the most important matter in the curriculum of the higher schools and of the Universities. Notwithstanding the prominent position given to English throughout the course, the results are most discouraging. Students after matriculation are found to be unable to understand lectures in English when they join a college. In some cases the difficulty is said to disappear after a short time: but it appears to be the case that many students pass through the entire University course without acquiring anything approaching to a command of the language, and proceed to a degree without even learning to write a letter in English correctly and idiomatically. Even those who have acquired considerable facility in speaking and composition are, as we ourselves had many occasions of observing, lamentably deficient in pronunciation. The evil begins in the schools. The great object of parents and guardians is to pass their boys through the school course as rapidly as possible, and pressure is brought to bear on managers of schools to promote pupils regardless of their fitness for such promotion. Boys begin to learn English as a language, and also to learn other subjects through the medium of English, long before they are capable of understanding it, and in the lower classes are taught by ill-paid teachers, who have no claim to be regarded as qualified to teach the language. Faults acquired at this stage are seldom completely eradicated, and, even when a boy reaches the higher classes of a high school, he is generally taught by a teacher whose vernacular is not English and who is wanting in the capacity to teach the language properly. Numbers of students reach the stage of Matriculation without ever having heard an Englishman speak, and incapable of understanding English as spoken by those whose mother-tongue it is. It is beyond our province to enter into details of management of the schools, but it is patent that if the Universities are to turn out good students in English, boys must be better taught in this subject at school. We therefore venture to express our opinion that it is desirable that the study of English should not be permitted to be begun till a boy can be expected to understand what he is being taught in that language, that the classes at schools should be of manageable size, and that teachers, whose mother-tongue is not English, should be passed through a training college where they may be tested in expression and elocution by an Englishman before they are given certificates to teach.

84. The character of the Entrance Examination in English at the different Universities is also responsible for the inferior knowledge of English which the undergraduates of Indian Universities display. The conditions prevailing at the different Universities differ considerably. At Calcutta, Allahabad and Lahore English textbooks are prescribed for this examination; at Madras and Bombay they are not. The question whether a text-book should be prescribed at this stage has been much debated. The advocates of each system contend that the other system fosters cram. It is contended on the one hand that, if a text-book is prescribed, the student confines himself to learning that book and perhaps an explanatory key by heart. On the other hand, it is urged that, unless some text-book is prescribed and particularly some poetry, a student learns nothing whatever of the language, and restricts his studies to learning lists of idioms and grammatical difficulties.

We are of opinion that good teaching and examining make text-books a secondary matter, and that it is undesirable that text-books should be prescribed in English at the Entrance Examination. What is required is that students in the Entrance classes should be taught some easy modern prose, with some simple poetry, the object being to enable them to read with ease the books from which they will derive information on other subjects during their college course. To secure this, the Entrance course can be described in general terms, a list of books being given by way of illustration. The list might consist chiefly of historical and descriptive books from which a student would obtain useful knowledge as well as linguistic training, and it should be so long as to exclude the possibility of all of them being committed to memory.

85. We consider that in the higher courses the books may be chosen as examples of language and style, and that in these courses books may be studied more or less minutely. Historical books may be suitably introduced into the Intermediate course in order to enable the student to improve his knowledge of history, and books on Philology and composition should be included in the B.A. course. The acquisition of second and third hand information through the medium of text-books is, we consider, to be deprecated. Books which deal with the history and criticism of literary works which the student has no opportunity of reading should not be included.

86. We think that the course in English for the M.A. degree has been too easy at some Universities, particularly at Calcutta, and we think that it should be combined with a course in a vernacular, or in an eastern or western classical language. This arrangement would remove the objection which has been taken to the restriction preventing persons, whose mother-tongue is English, from taking up that subject for the M.A. Anglo-Saxon has been included in some of the courses: we do not consider this to be desirable in Indian Universities.

87. The question whether a candidate for the B.Sc. degree should be required to pass in English as a subject is one on which there is some difference of opinion. It is urged, on the one hand, that the standard in English should be raised in the Intermediate course so as to render this unnecessary. The candidate for the degree in Science would then be able to confine himself entirely to scientific subjects, and it is contended that the study of Science in English books will ensure that he has a competent knowledge of English when he takes his degree. On the other hand, it is urged that this indirect test does not afford sufficient evidence of the knowledge of English that the holder of a degree should possess. At the Calcutta University a compromise has been effected by which there is no separate examination in English literature and language, but a candidate is required to write an essay on some scientific subject in English. This does not appear to us to be necessary, and we are not disposed to recommend that a candidate for the degree of B.Sc. should be required to undergo a separate test in English. It has been suggested that English should remain in the B.Sc. course for the sake of those students who proceed afterwards to the degree of B.L. The High Court may decline to accept the B.Sc. (without English) as sufficient evidence of the knowledge of English required of practitioners. We are, however, of opinion that to dispense with a separate test in English is the best for the general body of students in Science.

Latin, Greek and Hebrew.

88. The place of Greek and Hebrew in the Indian Universities is a small one and it is not necessary for us to make any remarks about these subjects.

In all the five Universities Latin is one of the optional classical languages which can be taken up by students at each of the Arts examinations from the Entrance or Matriculation stage up to the M. A. standard. In some of the Universities also, in the regulations regarding the examinations in the Faculty of Medicine, the study of Latin as a preliminary qualification for the Medical degrees is held to be desirable, though in no case is this required as an essential qualification. Indeed, there appears to have been considerable hesitation in ruling that the study of Latin should be essential before taking a Medical degree, for in the Calcutta University Regulations for the M. B. degree, though that qualification has been included for many years, yet the clause has been

kept in abeyance owing to the Syndicate being unwilling to give the order which is required to bring this portion of the Regulations into operation. Latin appears to be taught in few colleges and schools leading up to the Universities, and the numbers of candidates appearing in this subject in the various provinces have been small. In certain large centres, such as in Calcutta, the college classes in Latin are attended by very few students, frequently two, three or four students forming a class even in the lowest standards in this subject. As similar teaching is carried on in several colleges in the same town, it appears to us desirable for each University or each group of colleges in a town to consider whether, in the case of such a subject as this, some form of inter-collegiate teaching could not be introduced. It is clear that in certain cases there is considerable waste of teaching power in the subject. We have had little evidence as to the nature of the teaching in Latin given in the various colleges, but the standards of instruction are in some cases low, and the books are said to be memorised only.

Classical Languages of the East.

89. One of the most important questions in connection with the second language which has been raised before us is whether, as between a classical language and its allied vernaculars, the classical language alone should be recognized in the courses at the Universities, or whether any of those vernaculars may also be recognized. It is only in the Madras University that candidates are allowed the option of a vernacular or classical language. The evidence adduced at that University was conflicting, but the balance appeared to us to be against the existing practice. Whilst we are strongly impressed with the need for the more careful study of vernacular languages, we do not think, for several reasons, that to allow a student to study a vernacular in substitution for a classical language will secure that object or be advisable from the point of view of general education. We much prefer the plan suggested in paragraph 86 of introducing a vernacular language combined with English as a subject for the M. A. degree. In the first place, if the alternative of a vernacular language is permitted, many students will lose the benefits to be derived from a knowledge of a classical language containing a rich literature and embodying a record of the thought and action of one or other of the great races of mankind. There is no Indian vernacular, according to the strongest advocate of the alternative study of vernacular languages, that is as rich in literature as Sanskrit. In the second place, the amount of mental training which the study of a classical language ensures is much greater than that required for the study of a vernacular language. Thirdly, the study of classical languages is of the utmost importance for the improvement of their allied vernaculars. That the vernacular languages and literature have advanced more rapidly in Bengal and Bombay than in Madras appears to us to afford a striking illustration of this principle.

90. Sanskrit, Arabic and Persian are the principal classical languages of India which are studied in the Universities; Avesta and Pali are also recognized.

With regard to the teaching of Sanskrit, we have to remark that the teachers, whether Europeans or Indians, ought to have a critical knowledge of the subject and should be acquainted with western methods of study. This matter requires special attention in the Madras Presidency. We have noticed that the teachers of Sanskrit are not always regarded as on a level with, and are usually paid at a lower rate than, the Professors of other subjects. This circumstance is to be regretted and could not exist if only properly trained teachers were employed.

In reading and writing Sanskrit, the Devanagri characters, which are recognized as the proper characters for Sanskrit, should be used instead of any vernacular characters such as Bengali or Telugu.

91. From the evidence before us we are led to conclude that the teaching of Arabic in the majority of Indian colleges leaves much to be desired. Those who graduate in Arts with Arabic as their second language go away with a very superficial acquaintance with that language. They have not scholarship enough, we were told, to make intelligent use of an Arabic dictionary or construe an unseen passage, much less write Arabic prose.

One striking feature of the teaching is that although an elementary knowledge of grammar is taken for granted at all University examinations, the sub-

ject itself is never prescribed in any University course. A few grammatical questions figure in every paper on the literature texts, but no books are prescribed nor even a syllabus which might lead to a systematic study of the subject. This seems to us to be a mistake. A thorough acquaintance with the main principles of grammar is an essential condition of even a moderate amount of familiarity with Arabic literature and language.

Another feature which struck us was that Arabic teaching, specially in the United Provinces and in the Punjab, is generally in the hands of men who have no knowledge of English. We heard even their Arabic scholarship impugned by a competent witness, himself a noted Arabic scholar. Their acquaintance with the language and its literature, we were told, is limited and their methods of teaching antiquated.

We have therefore come to the conclusion—

(1) that well chosen Arabic text-books in grammar, not necessarily those in popular vogue, should form a compulsory part of the course prescribed by the University including its highest stages ;

(2) that unseen passages and composition should carry high value in all the higher examinations ;

(3) that in future a fair knowledge of English in addition to a scholarly acquaintance with the Arabic language and literature should be required of Professors of Arabic in colleges ;

(4) that the emoluments of an Arabic Professor, provided he possesses the qualifications above described, should be in no way inferior to those of other Indian Professors.

92. Though fewer complaints have reached us with regard to Persian, we are not satisfied that the teaching of that language is as efficient or in as efficient hands as it might be. The employment of graduates with some guarantee of their Persian scholarship other than the Arts degree with Persian as their second language, is the only remedy that we are able to suggest.

Persian has been accepted in all the Indian Universities as a classic, and we have found no reason to quarrel with that decision. We are however of opinion that no graduate should have it in his power to take the higher or Master's degree in Persian alone. The objections that have been urged against the granting of that degree in English apply with still greater force to the recognition of Persian in this connection. One of the other classics or Urdu should, we think, be made compulsory in all cases in which a graduate comes up with Persian for his Master of Arts degree.

93. In commenting on the ancient places of learning we alluded to the titles conferred on students who follow the traditional methods of study. The question has been raised whether the Universities might undertake these titles examinations, and if so, subject to what modifications. Opinion is not unanimous as to whether University control would be for the advantage of the examinations, and it is said that they are not at present self-supporting and would therefore be a burden on the Universities. We think that the titles examinations fulfil a very useful purpose and that every encouragement should be given to them, but we would not advise that the Universities should assume charge of them unless they can be efficiently conducted, unless a standard can be maintained of which the Universities will approve, and unless the transfer will be in the interest of ancient learning. The position in the Punjab is different from that elsewhere and we shall have occasion to revert to it in a subsequent paragraph.

Vernacular Languages of India.

94. We have already noticed two important matters connected with the study of vernacular languages, and have expressed the opinion that (*a*) the vernacular languages of India should not be recognized as second languages side by side with the allied classical languages for any of the University examinations above the Entrance, and that (*b*) the vernacular languages should be introduced (as at Bombay) in combination with English as a subject for the M.A. Examination The M.A. Examination in the vernacular should be of such a character as to ensure a thorough and scholarly study of the subject. The encouragement of such study

by graduates who have completed their general course should be of great advantage for the cultivation and development of vernacular languages.

95. Speaking generally, we fear that the study of vernacular languages has received insufficient attention and that many graduates have a very inadequate knowledge of their mother-tongue. We hope that the inclusion of vernacular languages in the M.A. course will give an impetus to their scholarly study; and as we propose that courses of advanced study should be under the supervision of the University, we consider that the establishment of professorships in the vernacular languages is an object to which University funds may properly be devoted. We also think that vernacular composition should be made compulsory in every stage of the B.A. course, although there need be no teaching of the subject. The vernacular is already indirectly recognized where it is the language into which the student is required to translate. The evidence on this subject tends to show that translations are sometimes marked for the verbal accuracy of the rendering only; the principle should be recognized that no translation is satisfactory unless it is properly and grammatically composed. Further encouragement might be given by the offer of prizes for literary and scientific works of merit in the vernacular languages.

96. Unless, however, a good training in the vernacular is given in the schools, no effort of the University will avail. At present the subject is frequently neglected and the teaching is relegated to ill-paid and incompetent instructors. As in the case of English, so in the case of the vernaculars, better teachers are a primary need. Every boy should, on the completion of his school course, be required to pass an examination severe enough to show that he has a knowledge of his own language sufficient to enable him to express himself with ease and propriety.

97. The Punjab University occupies a peculiar position in that it recognizes University teaching through the medium of the vernaculars as part of its system. It confers the degrees of Bachelor or Master of Oriental Learning on candidates who have gone through a course of training analogous to that prescribed for the B.A. and M.A. courses on the English side, through the medium not of English but of the vernacular (Urdu). This system has not so far borne encouraging fruit, partly through neglect and partly through the absence of proper text-books and the inherent difficulty of obtaining the services of lecturers competent to convey western learning to their pupils in the vernacular. The preparation of suitable text-books in Urdu and Hindi was part of the original scheme of the University, but little or nothing seems to have been done in this direction.

There is considerable conflict of opinion among the witnesses who appeared before us at Lahore, regarding this part of the functions of their University. While some denounce the system in unmeasured terms, the majority uphold it on the whole, but counsel reform. We have come to the conclusion that while the initial character and scope of the endowments bestowed on the University at its foundation, have perhaps made the maintenance of the oriental side of the University binding on the Government, the manner in which that side has hitherto been conducted leaves much to be desired. The Regulations for the degree of B.O.L. in such subjects as Science indicate that some of the most modern and advanced text-books are required to be used and that they have to be taught through the medium of the vernacular (Urdu). Many of the text-books prescribed would be sufficiently difficult even if used in an English course. We are informed that there are no vernacular translations of such works, and so far as we have been able to ascertain, there are no Professors in the Oriental College who have had the training or experience necessary to fit them to be Professors in advanced courses of Science. We would, therefore, suggest that the teaching for the two courses of B.O.L. and M.O.L. should be retained with these important modifications—

(1) that English, as a second language, should be made compulsory throughout, the standard being left to be determined by the Syndicate;

(2) that whenever possible, graduates with high honours on the English side should be appointed lecturers in this department and that it should be their duty to prepare their courses for publication;

(3) that funds should be set apart annually for the publication of the courses of lectures thus prepared and for the compilation and publication of other text-books on subjects not covered by them.

(4) that the Oriental College ought to be subject to the same rules of affiliation as other colleges connected with the Punjab University.

98. We are not prepared, however, to recommend that the example of the Punjab should be followed by any other University for the present. We look upon the Punjab system as an experiment which has not yet justified itself by its results but which may have possibilities which we are not now in a position to forecast or measure.

99. Attached to the Oriental College is a school working up to the Entrance Examination in the Oriental Faculty. We are of opinion that such school work is outside the scope of the University.

Modern Languages of Europe.

100. In Bombay French, and in Madras French or German, is included as an alternative second language in the B.A. course. In the former case, owing, it is said, to the comparative easiness of the examination, French is taken up by a number of students to the detriment of the study of the classical languages of the Province. This result is to be deplored, and measures should be taken to prevent students from neglecting the study of classical languages in order to secure an easier examination. We deprecate the substitution of a modern for a classical language; but we would allow female candidates to offer French as is now the rule at Calcutta.

Philosophy.

101. In regard to Philosophy, or, as it is sometimes called, Mental and Moral Science, the following questions require consideration:—

(1) What should be the position of the subject in the Arts course?

(2) Should the different branches of the subject be defined by syllabuses, or by text-books, or by both?

(3) What should be the general scheme of the courses in Philosophy?

102. With regard to the first point, we do not think that Philosophy can be included in the Entrance Examination, but we are of opinion that those students who decide on a literary course should begin the subject as soon as they enter the University. We are of opinion that the following three subjects must be made compulsory for the Intermediate course, *viz.*, English, a classical language and Mathematics. Without overburdening the curriculum it is possible to add another subject. In a later paragraph we shall explain our reasons for thinking that the study of Physics and Chemistry should be introduced at this stage for those students who intend to follow a scientific curriculum. A small portion of the subject of Philosophy, namely, Deductive Logic and elementary Psychology, should, in the alternative with Physics and Chemistry, form the fourth subject. But under any arrangement of studies it is not contemplated that the addition of this fourth subject should involve more work than can be adequately, and without over-straining the minds of the students, brought within a two years' curriculum.

In a later paragraph we shall recommend the exclusion of science subjects from the B.A. course; in the literary course that will remain we think that Philosophy should be a compulsory subject. In addition to the importance attaching to it for the truths it embodies, it has, like Mathematics, a high disciplinary value in the training of the mind.

103. Upon the second question there is considerable difference of opinion among experts, and much diversity of practice among Indian Universities, some being in favour of prescribing syllabuses only, while others prescribe text-books as well. Considering the different methods in which each topic of a prescribed syllabus in Philosophy may be treated, and the range which the treatment of each topic may take, we may, without wishing to limit the freedom of action

of any University, state it as our opinion that it is desirable to define the extent of this subject in the course for any examination by a syllabus and that suitable text-books may also be recommended for study.

104. The third and last question bearing on the subject we do not propose to answer in detail. We leave it to the different Universities to frame their own scheme for their different courses of study.

We would only suggest that—

(1) for the Intermediate course Deductive Logic and Elementary Psychology will suffice;

(2) for the B. A. course Deductive and Inductive Logic, Psychology and Ethics, Natural Theology and the History of Philosophy may be required, the course in Psychology being preceded by a short course on the Physiology relative to the subject;

(3) for the M.A. course, in addition to the works of Greek and German philosophers, suitable portions of some of the great systems of Indian Philosophy—to be read from English translations—may be recommended.

In making this last suggestion we are fully alive to the objection that it is seldom satisfactory to read the metaphysical works of an author from translations. But if Plato and Kant can be studied from translations, there is no reason why Vyása and S'ankara may not be similarly read. Students who take Sanskrit as their classical language will no doubt prefer the original texts.

Mathematics.

105. In all the Universities Mathematics is a compulsory subject in the F. A. and a voluntary subject in the B. A. course. In Calcutta a student selecting the "B" or scientific course for his Arts degree is required to study Mathematics as one of his subjects.

Some witnesses said that as many students with high intellectual parts have no taste for Mathematics, they should not be compelled to study it after Matriculation, the portion of the subject they learn for Matriculation being sufficient for their practical purposes. We are unable to endorse this view. The amount of Mathematics prescribed for the Intermediate Examination (the only Arts examination after the Entrance for which Mathematics is a compulsory subject), is not of such a nature that a student of average intelligence can find any real difficulty in understanding and mastering it, if only it is properly taught, and he devotes some time and attention to its study. We do not think that it can be properly said that the Mathematics learnt for Matriculation is sufficient for all practical purposes; moreover, its study affords an excellent mental training. We would therefore retain Mathematics in its present position as compulsory in the Intermediate and make it optional in the B. A. and B. Sc. courses.

The assertions that Mathematical subjects are crammed and that propositions are learnt by heart, and other allegations of a like nature which have been made before us, point to the need for improvement both in teaching and in the methods of examination.

History, Political Economy and Geography.

106. History is a compulsory subject in the Intermediate course in Madras and Bombay and an optional subject in Calcutta, Allahabad and the Punjab. In the B. A. course it is optional in all Universities except in Bombay where it is compulsory. We do not think that the subject can be included in the Intermediate course without overburdening it. In the B. A. course we think that it should be optional in all Universities.

We have several times listened to the complaint that history is a subject that is usually crammed. To remedy this evil we would suggest that—

(1) the subject should be defined by periods, books being recommended, not prescribed;

(2) if it be possible, some study of original documents should be introduced, as has been done for students of history in England;

(3) some use of contemporary historians should also be required, and the student should be accustomed to use them critically.

The opportunities for an intelligent study of history are frequently absent. A reference library seems to us to be as necessary to the teaching of History as a laboratory is to the teaching of Natural Science.

The courses in History should be carefully adapted to the needs of Indian students. The study of contemporary documents relating to Indian History, would, in our opinion, form a useful exercise for the minds of the students.

107. Political Economy is at present usually combined with History. We would recommend that this practice should be continued, but think that the method of teaching the subject requires to be improved. Some teachers complain that they are restricted to the abstract doctrines of certain European and American economists and that students learn the subject matter of the books without grasping the theories or comprehending the illustrations. The study might be made more intelligible and more instructive if attention were directed to the economic conditions with which the students are familiar, and if they were encouraged to investigate in a scientific manner the economic problems of India.

108. Geography claims attention—

(1) as an indispensable aid to the teaching of History; and

(2) as a part of any commercial course which it may be possible to connect with the Universities.

All candidates for entrance to a University are required to show some knowledge of elementary Geography and a more detailed knowledge of the Geography of India. The subject does not at present find a place in any of the University courses.

Science Courses.

109. The first point to be considered is the stage at which the University should require the study of Science to form part of the curriculum.

Whatever arrangements the Universities may find it necessary to adopt in the future when a School Final Examination shall have been established by the various Educational Departments, it seems necessary to lay down the rule that an examination in Science should form no part of the test for admission to the University course. In two Universities, *viz.*, Madras and Bombay, a knowledge of elementary Science is necessary for passing the Matriculation Examination and in the Punjab University Physical Science is an optional subject in this examination. Evidence, however, has not been wanting to show that this is the portion of the work of Matriculation classes which has proved most unsatisfactory—so unsatisfactory that the University of Madras has recently decided to alter its rule by combining the subject of Science with those of History and Geography under one head. The reason which lies behind all this is the impossibility of securing that the teaching of Science in the schools, the majority of which are not equipped or very poorly equipped for this purpose, shall be adequate as an introduction to the study of the subject in a University course. Leaving it to other authorities, if they desire to include this study in a school curriculum, to devise measures for making the teaching effective for the purposes of a School Final Examination, we are of opinion that in the case of students who intend to enter the University, this study may be postponed until after Matriculation, when it can be advantageously carried on in colleges properly equipped for the purpose in respect both of teaching staff and apparatus.

There are many advantages in thus deferring this discipline. The subject will be better taught, and the methods of exact science more thoroughly inculcated, and the students at this more advanced stage in their education will be less exposed to the danger of acquiring loose habits of thought and reasoning in regard to physical facts than in the earlier stages.

110. The study of Science thus postponed to the period succeeding Matriculation may most appropriately be included in the Intermediate course. It is important, in view of the general scheme of University study which we contemplate, that the student should have an opportunity of discovering his special tastes and capacities so as to be able intelligently to decide on the particular line of

study which he is to pursue during the last two years of his course for the degree. It is also desirable that he should have acquired some preliminary preparation for the particular curriculum he selects. For these reasons we have recommended in paragraph 102 that Physics and Chemistry should be one alternative for the fourth subject of the Intermediate course.

111. In order to secure that the instruction in elementary Physics and Chemistry shall be imparted according to sound methods, a practical course in these subjects must be prescribed. Each candidate should not only attend lectures in Physics and Chemistry; he should go through a regular course of practical experimental work. We do not recommend that there should be a practical examination in these subjects conducted by the University as part of the Intermediate Examination, but that each candidate should present a certificate from the authorities of his college to the effect that he has duly gone through the practical course prescribed in the laboratories of the college, and that he has passed the college test examination in the practical work of the course. The written examination may be so devised as to elicit the fact of his having undergone this training, and the University will require to assure itself that the college in which he has studied provides adequate facilities for this kind of instruction. We recommend this as a substitute for a practical examination by the University because of the great difficulty of conducting a satisfactory practical examination at a number of centres at a distance from the seat of the University, and also because it is desirable to enlist the co-operation of the colleges and to encourage them, wherever this is found to be practicable, to share the responsibilities of the University. We believe that, under such a scheme as has been sketched above, it will be possible to secure a study of Science which will not consist in the mere mastering of college notes or pages of text-books, but will exercise the student's faculties of observation, his skill in manipulation, and his powers of reasoning.

112. The B. Sc. course should be entered upon by students who have passed the Intermediate Examination. In the majority of cases these will be the students who have selected elementary Physics and Chemistry as their fourth subject in that examination, but we have not thought it necessary to lay down any rule preventing candidates who have passed in Logic and Psychology from entering the course for the B. Sc. degree. Such candidates may, in exceptional cases, select the B. Sc. course and should not be prevented from so doing. It is, we think, inexpedient at any stage below the Intermediate Examination to establish a definite bifurcation of courses.

The B.Sc. course of two years of study after passing the Intermediate Examination should lead to an examination in one of the following groups of subjects :—

Mathematics, Physics and Chemistry, *or*

Physics, Chemistry and Natural Science.

By Natural Science is intended one of the following Sciences: (*a*) Botany, (*b*) Physiology, (*c*) Zoology, (*d*) Geology including Mineralogy and Palæontology.

Of the three subjects in each selected group one should be the candidate's special subject. In the first group any one of the three may be taken as a special subject; in the second group the Natural Science subject should be the candidate's special subject. The scope of the examination in the other two subjects should be more restricted than that of the examination in the subject in which the candidate elects to specialize. A student of higher Mathematics will thus have the option of following an Arts course and combining his Mathematics with literary studies, or of following a Science course and combining his Mathematics with Physics and Chemistry. A student of higher Physics will be required to study a certain amount of Mathematics and Chemistry and a student of higher Chemistry will be required to study a certain amount of Mathematics and Physics. A student of Natural Science will be required to study, as it is most important that he should, a certain amount of Physics and Chemistry. It is not in our opinion necessary or desirable to provide for any other combination of these subjects.

113. We have considered the question of nomenclature and have come to the conclusion that it will be expedient to retain the two designations B. A. and B. Sc. for graduates who have taken the literary and the scientific courses respectively. A common degree, *viz.*, B. A., might adequately enough represent the qualifications of both classes of graduates (the Calcutta University has for a long period had its two classes of B. A.'s—those of the A and those of the B course); but in view of the fact that nearly all the Indian Universities now confer the degree of B. Sc., it seems desirable to express the distinction between the two lines of study by distinctive degrees.

114. In all these examinations for the degree of B. Sc. the practical side must be made more prominent than it has been in the past history of this degree as conferred in several of the Indian Universities. Each practical examination must be passed independently of the ordinary written examination. Each must have its separate minimum of marks, and, above all, ample time must be allowed for a thorough and fair practical examination.

115. With reference to the conditions under which a B. A. may proceed to the degree of B. Sc. and *vice versâ*, we are of opinion that no special facilities in the way of a reduced period of study or diminution in the number of subjects should be conceded in such cases. The time allotted to a course of scientific study, *viz.*, two years, is short enough for any student however advanced his general education; while to allow literary attainment to compensate for a less extensive course in Science or *vice versâ* would be to deprive the degree thus obtained of its real meaning and value.

It should further be possible for a graduate in Science to proceed to the higher degree of M. Sc. by specializing in one of the above branches of Science and presenting himself for examination in such subject after some specified period reckoned from the time of his graduation as B. Sc.

116. In the Faculty of Science the Doctor's degree should not be obtainable solely by examination, but should be awarded mainly on the ground of original investigation in the particular Science in which the candidate has taken his Master's degree. We consider that five years of research work may reasonably be required; and we suggest that when an advanced student who has devoted himself to research aspires to any post under Government, the rule which imposes an age limit of 25 may be relaxed in his favour.

117. If our suggestions are carried out, the courses described in paragraph 82 will be simplified, and will stand as follows:—

Intermediate Course—

1. English.
2. Classical language.
3. Mathematics.
4. One of the following:
   (1) Physics and Chemistry, or
   (2) Deductive Logic and Elementary Psychology.

B. A. Course—

1. English.
2. Classical language.
3. Philosophy.
4. One of the following:
   (1) Mathematics;
   (2) History and Political Economy.

B. Sc. Course—

One of the following groups of subjects:

(1) Mathematics, Physics and Chemistry.

(2) Physics, Chemistry and Natural Science.

M.A. Course—

Any of the following subjects :

(1) Languages—the course to include either English combined with a classical or Indian vernacular language or a classical language of India combined with an Indian vernacular.

(2) Philosophy.

(3) History, Political Economy and Political Philosophy.

(4) Mathematics.

M. Sc. Course—

Any one of the subjects included in the B. Sc. course.

The degrees of *Doctor of Literature* and *Doctor of Science* to be given to Masters of Arts and of Science respectively after some years spent in original investigation.

Having now dealt with the courses in Arts and Science we will proceed to the consideration of the professional subjects.

LAW.

118. In the course of our inquiries we have made acquaintance with various systems of Law teaching, but none of them is as yet so successful as to justify us in proposing it as a model.

The Madras Law College has been reorganized as a whole-time college. Candidates for degrees are required to have taken the B.A. degree, but may attend two terms' Law lectures before taking the B. A. : this regulation ought, we think, to be altered. Roman Law is among the subjects of the First Examination and M. L. Examination ; Hindu and Mahomedan Law and Indian Constitutional Law are among the subjects of the B. L. Examination. The Madras Law College and the Maharaja's Law College at Trivandrum are the only institutions authorized to send up candidates for Law degrees. The Bombay Law School is conducted as an evening school, the teachers being practising lawyers. The school is lodged in certain rooms of the Elphinstone College building (a building not originally designed for a college). There is no tutorial teaching, and students leave off attending lectures as soon as they have kept their terms. Prizes are given, but very few compete. There are Law classes at Poona, Ahmedabad, Karachi, Baroda and Bhavnagar. These classes are established by local colleges in order that their students may not miss the supposed advantage (enjoyed by students of Bombay colleges) of being enabled to begin their Law studies as soon as they have passed the Previous Examination and while they are still reading for the degree in Arts.

At Calcutta there is no central School of Law : the classes in the Presidency College were given up because they were thought unnecessary in view of the large number of students attending Law lectures in private colleges. Some of the private colleges have large Law classes and some of their Professors are men of learning and of professional eminence. Many mufassal colleges have a Law Department consisting of one lecturer, or, in some few cases, of two. The lecturer is usually a local pleader, who gives an hour in the morning or evening to the work of instruction. As a rule, the students have not access to any Law library. The prescribed course of study extends over two years and begins after the B. A. or B. Sc. A student is required to attend 24 out of 36 lectures in each of 8 subjects. He usually leaves off attending as soon as he has completed the requisite number. Roman Law is not now taught.

At Allahabad, the Muir College, which is affiliated " up to all standards " in Law, has a staff of one Law Professor. The other colleges affiliated in Law have one Professor or lecturer each. At Aligarh it is recognized that one teacher cannot do justice to all the subjects, and the Professor is assisted by a small staff of local practitioners, old students of the college. The course of study prescribed by the Allahabad University extends over two years after the B. A. or B. Sc. The course does not include Roman Law.

At Lahore the Law teaching of the Province is centralised in the School of Law. The building is unsatisfactory and the library far from adequate. There are two sections, English and vernacular. The prescribed course may be begun on passing the Intermediate and many students read Law concurrently with Arts. Those who proceed to the degree of B.L. must graduate in Arts ; they are also required to study a portion of Roman Law.

119. Our first recommendation in regard to Law study is, that it ought to be postponed until the student has finished his course in Arts. If he is intended for one of the lower branches of the profession, he may begin after the Intermediate Examination ; if he is going to the Bar, or means to take the B.L. degree, he should begin after passing the B.A. Jurisprudence should not in any case be admitted as an optional subject in any course leading to the B.A. degree.

120. Of the courses of instruction there is little to say. We are informed that the rising race of pleaders are not deficient in book-knowledge. They sometimes lack the power to apply their knowledge to the case before them. The best corrective of this defect would be supplied by the practice of teaching from cases, the system now followed by many of the best teachers of Law in England and America. The preparation of books of cases for students would afford an outlet for the ingenuity which is now wasted in compiling " keys " to works which do not require explanation. Inasmuch as many of our Law students are ignorant of Latin, we do not recommend that Roman Law should be made a necessary subject.

121. Our summary shows that in each University, except Calcutta, the teaching of Law has been more or less centralised. The results are far from satisfactory, and we recommend that the question of creating or maintaining and improving an adequate central School of Law should be taken up without delay at each of the Universities. The Professors of such a School, including any University Professors who may be connected with it, may be judges or practising lawyers who meet their classes in the morning or evening out of court hours. This arrangement is not in all respects convenient, but it is the only arrangement by which we can secure the services of men possessing a thoroughly practical knowledge of the subject. There should be a staff of tutors, competent to help students in their reading, and above all there should be a good Law library where students may learn for themselves how to find authority for the propositions which they are required to master. We believe that a School such as we describe can be made self-supporting. In the council or governing body it is desirable that the Bench and Bar of the local High Court should be strongly represented.

122. If such a central School were established, the local Law classes and Law Departments must disappear, except where it can be shown that a centre of *bonâ fide* legal teaching can be established. This will involve temporary embarrassment to some colleges, which depend on the profits of a cheaply worked Law Department to balance their accounts ; but this is not an argument for perpetuating an unsatisfactory form of Law teaching. To do away with local classes will in many cases increase the expense of the law student's education, but the central school will have its scholarships ; and even if the net result should be to diminish the number of lawyers in India, we are not certain that this would be an unmixed evil.

MEDICINE.

123. Under the Acts incorporating the Universities of Calcutta, Bombay and Madras power was given to confer the degrees of Licentiate in Medicine and Doctor of Medicine only. The later Act of 1860 gave power to confer additional degrees. The Acts incorporating the Punjab and Allahabad Universities authorized the Senate to confer the degrees of Bachelor and Doctor of Medicine if empowered by the Governor General in Council in this behalf. At present there is no medical college within the sphere of influence of the Allahabad University, and the Senate has not been empowered to confer medical degrees. The teaching of Medicine for University degrees elsewhere has been, in our opinion, rightly centralized in the four Government medical colleges—at Calcutta, Bombay, Madras and Lahore. These colleges are not maintained solely for students preparing for the University course. At each of them there is a class of

military pupils; at the Madras College, Hospital Assistants also are trained for Government service; at the Bengal Medical College, there are classes for casual students who do not wish to proceed to the University examinations, and for women who study medicine with a view to obtain a certificate from the college authorities in place of a license from the University. Each college is managed by a Principal, assisted by a staff of Professors. The professorships are divided into major and minor. The former include all the professorships which deal with Medicine and Surgery in their different branches, and the professorship of Chemistry. These appointments are reserved for officers of the Indian Medical Service. The duties of the Professor of Chemistry are combined with those of Chemical Examiner to Government: the evidence given before us has satisfied us that it would be better to allow the Professor to devote his whole time to the duties of his chair.

124. We were somewhat disappointed to observe that the state of equipment of the medical colleges is not, generally speaking, up to the requirements of the present day. There is overcrowding in the class-rooms, and the arrangements for practical work are generally inadequate. Considerable improvement has been recently effected at the Madras College in order to provide for laboratory teaching and instruction in Bacteriology, and we understand that money has now been granted to provide effectually for these objects at the medical college at Calcutta. The complaints made of the inadequate equipment of the medical colleges at Bombay and Lahore are in our opinion well-founded, and we recommend that steps should be taken to improve it. The provision of hostels for the students at the medical colleges, who are going through the University course, also calls, we think, for the early attention of Government. No hostels have as yet been provided for such students at Madras or Lahore. We learnt that students at the former college can reside at the Victoria Hostel attached to the Presidency College, but separate quarters should, in our opinion, be provided. The Government of the Punjab has, we understand, granted money for the establishment of a hostel at Lahore during the current year. At the Grant Medical College at Bombay, where there are several hundred students on the rolls, accommodation is provided in a hostel for 15 students, that is, for those engaged on night duty only. At Calcutta a certain number of Hindu students are accommodated at the Eden Hostel, while the female students reside at the Sornomoyee Hostel, and those in the military class in a hostel near the college, but the great bulk of the students are not provided for. We desire to represent to the Government the urgent need for the provision of funds for proper hostels at the medical colleges at Calcutta, Bombay and Madras.

125. The colleges at Calcutta and Lahore are utilized by students from the United Provinces of Agra and Oudh. The numbers attending both these colleges are, we think, too large, and we would suggest that the time has come to establish a medical college somewhere in the United Provinces for the benefit of medical students belonging to those Provinces, the Central Provinces, and the Native States in the neighbourhood.

126. Some witnesses complained of the system under which the more important of the professorships at the medical colleges are reserved for officers of the Indian Medical Service. It was asserted that the authorities responsible for making these appointments have not always been careful to select, as a Professor in a particular subject, a man who has special qualifications for teaching it, and that sometimes an individual has been regarded as competent to occupy chairs in different subjects in succession. We do not think it necessary to review the rules which the Government has laid down to the effect that only members of the Indian Medical Service should be appointed to be Professors in certain chairs at the medical colleges which it maintains. The complaint that a Professor is sometimes moved from one chair to another appears to us to have some foundation, though such transfers have not been common in recent years. We think it clear that no one who has not devoted special attention to a particular branch of medical study and displayed special knowledge of it should be appointed to lecture in it, and that the idea that a medical officer selected to lecture in a particular subject, either permanently or temporarily, should have any claim, owing to his position in the service, to be transferred to another professorship which may fall vacant, should be definitely discarded.

127. An opinion was expressed before us that the transfer, under the orders of the Government of Bengal, of the control of the Bengal Medical College to the Inspector-General of Civil Hospitals from the Director of Public Instruction has been injurious to the welfare of the college. The change has been recently made, and the evidence did not convince us that its effect had actually been prejudicial. We have, therefore, no suggestion to make on the subject.

128. We now turn to the courses of medical instruction leading to the grant of diplomas and degrees; and on this point it will be necessary to refer to the existing regulations in some detail. The Calcutta and Punjab Universities grant a diploma to those who pass the examinations for a license in Medicine and Surgery, and also confer the degrees of Bachelor and Doctor of Medicine. The Madras University confers the degrees of Licentiate in Medicine and Surgery, Bachelor of Medicine and Master in Surgery and Doctor of Medicine. The Bombay University confers the degrees of Licentiate of Medicine and Surgery and Doctor of Medicine.

The period for which a candidate for the L. M. and S. diploma or degree is required to be engaged in professional study at a recognized school of medicine is five years at Calcutta, Bombay and Lahore and four years at Madras, where the L. M. and S. course does not include a preliminary course of scientific training.

129. While the regulations of the other Universities require that a student at a recognized school of medicine must have passed the Intermediate Examination before he appears at any of the University examinations for the L. M. and S. diploma or degree, the Matriculation Examination is accepted as a sufficient test by the Bombay University. There is at this University an examination in elementary mechanics of solids and fluids, in addition to the three examinations which, as at other Universities, lead up to the degree of L. M. and S. A candidate, who has passed either the Intermediate Examination in Arts (which includes an examination in elementary physics) or the Intermediate Examination for the degree of B. Sc., is exempted from producing a certificate that he has passed the examination in elementary mechanics of solids and fluids. Moreover, as the standard at the Matriculation Examination is found not to ensure a sufficient knowledge of English, the authorities at the Grant Medical College insist on a special preliminary test in that language.

130. The courses for the L. M. and S. diploma or degree correspond generally at Calcutta, Bombay and Lahore. There is a preliminary scientific examination in Chemistry and Botany, followed by two professional examinations. The course is somewhat different at Madras. There is no separate preliminary scientific examination. A candidate has to pass three professional examinations, at the first of which he is examined in Chemistry, Anatomy, Physiology and Histology.

At Bombay and Madras a candidate cannot appear at the final L. M. and S. Examination till he is 21. There is no similar restriction at Calcutta and Lahore.

131. The course for the M. B. degree at Calcutta, Madras and Lahore extends over five years: three examinations have to be passed at Calcutta and Lahore, and four at Madras. The preliminary qualification at Madras is the same as for the L. M. and S. degree. The rules at Calcutta empower the Syndicate to make a pass in Latin at the First Arts Examination a preliminary qualification, but this power has never been exercised. At Lahore a candidate is required to have passed the B. A. or B. Sc. Examination of an Indian or other recognized University. A candidate at the Preliminary Scientific M.B. Examination at Calcutta has to pursue a slightly wider course of study in Chemistry (which here includes Chemical Physics) and Botany than at the Preliminary Scientific L.M.S. Examination, and has also to pass in Comparative Anatomy, Comparative Physiology and Zoology. At Lahore the course of study prescribed in Chemistry and Botany is the same at the Preliminary Scientific Examination for the M. B. degree as it is at the Preliminary Scientific Examination for the L. M. S. degree, but a candidate for the M. B. has in addition to be examined in Comparative Anatomy and Zoology. The two subsequent examinations in medicine for the M. B. at Calcutta and Lahore practically cover the same ground as those for the L. M. S. A candidate who appears for the M. B. Examination at Calcutta and, though failing to

reach the standard prescribed for that degree, qualifies by the standard required at the corresponding L. M. S. Examination, is entitled to a certificate of having passed the latter examination. At Madras a candidate for the degree of Bachelor in Medicine and Master in Surgery is examined at his first examination in Chemistry, Physics and General Biology. The subjects at the three subsequent examinations correspond generally to those at the three L. M. and S. Examinations, but the range is somewhat wider, more marks are given for chemical work, Chemical Physics is also a subject of examination, and a higher standard of proficiency is required in all subjects.

No one can appear at the first examination at Madras till he is 18 years of age. Consequently no one can become a Bachelor of Medicine till he is 23. There is no corresponding limit at Calcutta or Lahore.

132. At Calcutta a Bachelor of Medicine or the holder of a diploma, who is also a B. A., can be admitted to the M. D. Examination; at the Bombay University a candidate must have passed the B. A. or B. Sc. Examination in addition to having a medical degree of the Bombay University; while at Madras a candidate must have passed the M. B. and C. M. Examination, though the possession of an Arts degree, if the student has passed in certain of the scientific subjects, enables him to appear at this examination earlier than would ordinarily be the case. At each University a candidate is required to have practised the medical profession for a prescribed period. At Madras there is no examination for the degree of M. D. A candidate has to prepare a thesis to be approved by the Faculty. At Calcutta, Bombay and Lahore a candidate has, in addition to writing a thesis, to be examined in Medicine, Surgery and Midwifery.

133. The first question which arises for consideration in connection with the course of medical instruction is whether the Arts qualification to be required of a student entering the Medical College at Bombay should not be raised above the Matriculation. The present qualification has to be supplemented at Bombay both by the college and University, and the existing regulations enable candidates, who have failed for the First Arts Examination at Calcutta, to enter the Grant Medical College, although disqualified from entering the Bengal Medical College. We are of opinion that the preliminary test at Bombay should be raised to the Intermediate Examination. At Lahore no further qualification in Arts or Science need be required for the M. B. degree.

134. The suggestion has been made that a pass in Latin should be made compulsory on candidates for medical degrees before they begin their professional studies. It is the general opinion of those witnesses who are qualified to speak on this question, that a knowledge of Latin is of great use, and indeed almost essential in the study of medicine, but, inasmuch as the British Medical Council has not considered it necessary to make a knowledge of Latin an absolute qualification, there is, we think, no ground for requiring every medical student in India to qualify in Latin.

135. The combination at the medical colleges of teaching in the preliminary scientific and professional subjects is said to lead to confusion, and if the preliminary scientific work were done outside the college, the staff of Professors at the medical college would, it is contended, be able to arrange their teaching on professional subjects more efficiently. On the other hand, it is urged that students should be introduced to hospital work as soon as possible, and some of the authorities at the medical colleges prefer to have medical students under their charge for the full period of five years' study. On the whole, competent opinion seems to us to be almost equally divided on this question, and we are not prepared to lay down a common rule for all the Universities.

We think that the preliminary scientific course should be similar in all cases. It must include Physics and Chemistry, and the third subject, now usually termed General Biology, should have for its special object the practical training of students in the use of the microscope, giving them at the same time some idea of the essential features in the structure and life-history of animals and plants. A special study of Botany or Zoology or of those subjects which are somewhat vaguely entitled Comparative Anatomy and Comparative Physiology may be dispensed with.

136. There was a considerable body of opinion in Bombay that the M. B. should be substituted for the L. M. and S. degree. In connection with this question it has to be considered whether the Universities should confer both the degree or diploma of L. M. and S. and also the M. B. The courses now prescribed for these two degrees are practically identical at Calcutta and Lahore, while at Madras, where there is greater difference between them, the number of candidates for the L. M. and S. degree is very small. The number of students at the Madras College is much smaller than at the other colleges, and it would, we consider, be impossible, to teach two courses varying in any material degree at the medical colleges at Calcutta, Bombay and Lahore without adding very considerably to the college staff, and consequently increasing the cost of these colleges to Government. It has been suggested that the colleges should give licenses in Medicine and Surgery, and the Universities the degree of M. B. For this proposal a precedent is to be found in the practice which existed at the Grant Medical College, before its affiliation to the University, of conferring the title of Graduate of the Grant Medical College. On the other hand, if the Universities are to be confined to granting the degrees of M. B. and M. D., while the colleges are to give licenses for inferior qualifications, it will be necessary to arrange for two courses of instruction at the colleges, a plan which will involve a considerable increase of expenditure. Moreover, private medical colleges have been started at Calcutta, if not elsewhere, and difficulty and inconvenience are certain to arise in the future if the Government medical colleges give licenses without being specially authorized to do so by legislation. There is not at present and there is not, so far as we are able to judge, likely to be in the near future, any law for the registration of medical practitioners in India. We think therefore that the best plan will be for the Universities to continue to give licenses in Medicine and Surgery to those who qualify for them, as well as the degrees of M. B. and M. D. The license should, we think, be a diploma as at Calcutta and Lahore, and not a degree as at Bombay and Madras, and it might be given to those who attain a somewhat lower standard in the examination for the M. B. degree, in both extent and depth of knowledge, than those who will be entitled to obtain that degree.

137. The general courses of medical instruction are, we are led to believe from the evidence of medical witnesses, capable of being improved, and we think that each University should revise and simplify its scheme of studies and examinations so as to provide for a preliminary scientific course, as above described, to be followed, firstly, by an intermediate course of Anatomy, Physiology and connected subjects, and secondly, by a final course of Medicine, Surgery and other professional subjects.

138. It has been suggested to us that the degree of Bachelor in Surgery should be given separately from that of Bachelor in Medicine, and also that a candidate for the degree of M. D. should not be required to be examined in Surgery and other subjects. We hesitate to offer an opinion on this matter, but, so far as we are able to judge, it appears to us to be undesirable to separate Medicine and Surgery at the stage of the Bachelor's degree, but desirable that any higher degree should be given for some special branch of study, a candidate being allowed to offer his own subject, and the University testing him, as it thinks fit, by examination or otherwise. We do not think that a candidate for the degree of M. D. need be required to have obtained a degree in Arts or Science.

139. We have mentioned above, that except at Bombay and Madras, no minimum age has been laid down for a candidate before he can appear at the final L. M. and S. or M. B. Examination. If our proposals are accepted, a student will not in future be able to pass the Intermediate Examination before he is 17 and will have to study subsequently for five years at a Medical College. It will not therefore be possible for him in future to obtain a diploma or proceed to a degree until he is at least 22 years of age. We consider this to be very desirable in the interests of the medical profession.

140. At Madras there is a degree of Licentiate in Sanitary Science, for which candidates who have qualified for the degree of M. B. and C. M. or L. M. and S. at the Madras University, or an examination accepted by the Syndicate as equivalent thereto, or are medical practitioners registered in Great Britain, can

appear. There have been very few candidates for this degree—a result which may be partially due to the fact that it is but a short time since arrangements have been made for teaching Bacteriology at the Madras Medical College. The evidence shows that there is a demand for a similar degree or diploma elsewhere. We are of opinion that it is desirable to make provision for students who take up this line of study, and we think that each University should establish a diploma of Sanitary Science, as soon as adequate arrangements have been made at the medical or other colleges for the proper teaching of Bacteriology, Sanitation and Sanitary Engineering. The provision of such teaching is a matter to which we venture to invite the attention of Government. We are of opinion that a diploma, and not a degree, should be given for Sanitary Science on the principle (which should, in our opinion, be generally followed), that it is not desirable to add to the number of degrees, and that the proper course is for a student to obtain a degree in the main subject of his studies, and to add to it diplomas in subsidiary subjects.

ENGINEERING.

141. The preliminary qualification for the University course is the First Examination in Arts in Calcutta and Madras, the Previous Examination in Bombay, and the Entrance Examination in the Punjab.

It has been represented to us that the substitution of the Previous for the Matriculation Examination in Bombay was a most satisfactory change, and that in Calcutta the knowledge of English possessed even by graduates who enter the Engineering College is insufficient. We think that the Intermediate Examination should be the preliminary qualification in all Universities, and hope that in the future the fact of having passed this examination will be a guarantee of an adequate knowledge of English.

142. As the colleges of Engineering train a large number of students for the lower branches of the profession and a small number only for the highest branch of which alone the University takes cognizance, we do not think it desirable that the University should itself undertake instruction in Engineering.

143. It would no doubt be of considerable advantage to a student to take the courses for a degree in Science before entering upon his professional study, but for such students as are unable to devote sufficient time for this it is probably desirable that such instruction as they need in Mathematics, Physics and Chemistry, beyond what is required for the Intermediate Examination, should be provided for in the colleges of Engineering.

144. In view of the fact that the degrees conferred by the Indian Universities in Engineering are recognised by the Institute of Civil Engineers, and that it is desirable that any person who calls himself a professional civil engineer should be a man of certain attainments and qualifications, care should be taken to provide similar courses and to equalise the standards in the different Universities, but the evidence on this point seems to show that it would not be feasible for the Universities to hold a common examination for degrees in Engineering.

145. We are disposed to think that some further provision is needed for instruction in Mining and Electrical Engineering. In these and indeed in all the subjects of this Faculty, the training should be practical throughout.

AGRICULTURE.

146. Very little evidence on the nature of the instruction given in this subject was placed before us, but several institutions established for the higher study of Agriculture were visited by us, including the three Agricultural Colleges (or sections of Colleges) situated at Madras (Saidapet), Poona, and Calcutta (Sibpur). We found that in each case the teaching staff consisted of only two or three permanent lecturers or Professors, assisted by lecturers holding half or quarter time appointments, or visiting the college for perhaps a month or six weeks in the year to give a few lectures. We are however informed that other colleges for the study of Agriculture are now in process of formation. This state of affairs may be contrasted with what has been done in other countries such as Japan, where in connection with the Tokio University there

is a College of Agriculture with a staff consisting of a Director and twelve full Professors with twenty-eight assistant Professors, and lecturers. Or the Indian staff in a college of Agriculture may be contrasted with the agricultural college maintained in connection with the University of Bonn where the staff consists of a Director and seventeen Professors and lecturers. It may also be mentioned that within recent years Great Britain has begun to realise the necessity of Agricultural teaching and that there are now numerous colleges which make provision for this study.

In a country like India which is mainly agricultural it would appear that agricultural teaching, both ordinary and superior, should be considered essential, and the contrast in the foregoing figures would appear to show that up to the present time the higher teaching of Agriculture in India has been much neglected.

147. Probably the most effective aid to higher agricultural education to be given in India would consist in the improvement and development of the various existing agricultural colleges and schools and also in the multiplication of such institutions. In these the sciences underlying or connected with scientific Agriculture should be taught both practically and theoretically and at the same time students should have practical training in experimental farms. Such a course would probably occupy two or three years. This however would scarcely complete the proper training of scientific agriculturists, and it would be well if students who had completed their course in the colleges and passed an appropriate examination for a diploma at the end of their theoretical instruction, could be drafted on to a farm controlled by experts and there undergo a subsequent training for a year or more in actual farm work, when they would have an opportunity of turning their college work to practical account.

148. It is as yet an open question how far the Universities can help in such a course of training. For some years the University of Bombay examined students for a diploma in Agriculture, and this has recently been changed into an examination for a degree (Licentiate of Agriculture). The examination is however mainly in what may be called the theoretical and scientific side of Agriculture. It would not be easy for any University thoroughly to test the second of the courses above described, but there does not appear to be any reason why University tests should not be applied to the first or scientific part of the training as is done in the Bombay University at the present time.

We are informed that there is now a demand for scientifically trained agriculturists for Government service in such posts as Deputy Collectors, Mamlatdars, or Kanungos, and also as Managers of Government and Court of Wards, estates, and we are of opinion that the Universities should do what they can to encourage such studies.

Commerce.

149. The teaching of the special subjects which ought to be studied by young men preparing for a commercial career has hitherto received very little attention in Indian colleges and schools. In Europe and America, and during the last few years in England in particular, increasing attention has been paid to the training, even up to the highest standards, of those who seek employment in houses of business, and in certain Universities in America, England, and other countries, Faculties of Commerce have been constituted and University degrees in this subject are given.

150. In the School Final Examinations held by the Bombay and Allahabad Universities certain subjects have been included which may be said to facilitate the entrance of students passing this examination into commercial pursuits; thus, for instance, Commercial and Political Geography is an optional subject in the Bombay School Final Examination, while practical subjects such as Drawing, Practical Geometry and Carpentry, are also included. In the Allahabad School Final Examination, Book-keeping, Drawing, Political Economy, etc., are optional subjects.

In Madras, under the auspices of Government, technical examinations are held, and some commercial subjects form part of the course. The Government of Bengal has also recently instituted courses intended to prepare students for commercial pursuits in what are called the "C Sections" of certain high schools. After this course students will be able to pass

into higher classes arranged on a college basis, where commercial subjects will be continued up to the period at which students usually appear for the First Arts Examination; and at this stage an examination will be held under the orders of Government. A partial promise to continue this commercial education up to about the period at which students appear for the B. A. degree has been made by Government provided that a sufficient number of students take up such courses of study.

In England the London Chamber of Commerce has been specially active in trying to foster commercial education, and with this object has instituted two series of examinations—a Junior and Senior course. These examinations are now held at various centres in Great Britain, and in the Colonies, and, within the last few years, they have been held in Bombay where they may, perhaps, be considered to take the place of a continuation course in Commerce beyond the School Final Examination. A promise has also been held out that the higher commercial examination of the London Chamber of Commerce will be held in future in Bengal, and classes in one of the Government schools are being arranged with a view to preparing students for the examination.

151. It is evident that a demand for instruction in commercial subjects already exists in certain parts of India, and we are of opinion that such branches of study should be fostered as far as possible both by the Universities and by Government. It is premature to consider whether the Universities should institute Faculties of Commerce or hold examinations in commercial subjects, such as are held in the University of Birmingham, and in the Universities of California, Chicago, New York, and Pennsylvania; but we would suggest that when occasion arises the Universities should do all in their power to facilitate and extend the work above described, by taking part in the examinations of the London Chamber of Commerce, or in those proposed to be instituted by the Bengal Government, or in other ways.

Teaching.

152. The extreme importance of training teachers for high schools and even assistant Professors for colleges in the principles and practice of education was urged by many witnesses. Indeed the disappointing result of the present systems of education in India, especially in their lower grades, was by many witnesses traced to the deficient supply of properly trained teachers. We are convinced of the fundamental importance of making better provision for the training of teachers, and we think that the Universities can afford material assistance in this matter.

153. We found that in all provinces attempts are being made, with varying success, to train up teachers for schools. In the case of the ordinary teachers required for secondary and for primary schools the courses of study and the examinations are organized by the Local Governments, and in most provinces there are both central and district or local training schools maintained by Government. Several such training schools were visited by us and it appeared to us that generally the equipment and teaching staff of such schools were satisfactory, and that the results of the training given are also of a satisfactory nature. We were assured by several witnesses that since the establishment of training schools, and where a sufficient supply of trained teachers can be provided, the teaching in the schools generally had improved. It was, however, clear that in certain provinces the number of training schools was much smaller than is desirable, and insufficient to supply more than a portion of the required number of trained teachers.

154. The majority of training schools educate teachers for the ordinary or lower masterships of secondary schools, and the special training of teachers such as are required for the head-mastership or even the second and third masterships of high schools or for assistant professorships in colleges has in several provinces been left quite untouched. In Madras a Central Training College for teachers has been established, and in this a considerable number of graduates of the local University are being trained. The institution appears to be well designed; the courses of instruction are suitable and the teaching staff is clearly doing good work. Such graduate teachers at the end of their course can proceed

to take the degree of Licentiate in Teaching at the Madras University where they are examined in—

(*a*) the principles of education;

(*b*) the history of education; and

(*c*) the methods of teaching and school management.

The candidates have also to pass a practical examination in teaching a class before the examiners.

The establishment of this college and the arrangements of the University for testing the qualifications of the students are said to have effected a marked improvement in the school teaching in the Madras Presidency.

In Bengal also a small training college for teachers, male and female, Indian and European, has been established at Kurseong; and in the case of the Indian teachers the class consists almost entirely of graduates of the Calcutta University. As up to the present time no examination for a license or degree in Teaching has been arranged for in this University, the graduate teachers are only examined theoretically and practically by an Inspector of Schools and diplomas are given on the result of the examination. Probably great stimulus would be given to these arrangements and great encouragement would be given to the provision of trained teachers if the local University were to examine candidates and grant a License in Teaching as in Madras.

155. We think it important that all the Indian Universities should endeavour to recognize and assist in the training of teachers of all classes in the theory and practice of education in any way in their power, and we recommend that in those Universities where no examination for the License in Teaching has been established steps should be taken to introduce it. We think the University may also take part in providing suitable courses of lectures for teachers.

EXAMINATIONS.

Need for University Examinations.

156. Examinations are required only in order to determine how far teaching has been successful. The lecturer or tutor questions his pupils from time to time to test their power of understanding what he tells them. The college examines its students periodically to make sure that they are not wasting their time. The University examines candidates in order to ascertain whether their learning qualifies them to receive degrees. The suggestion has been made that this last process should be omitted. The colleges, it is urged, can test their own students as they think fit, and may present those who have passed the test to the University as persons qualified to receive a degree. To the objection that colleges would present candidates not really qualified, it is replied that colleges acting in this way would lose credit, and that their graduates would not have the same standing as those of other colleges. We think that it is beyond doubt that the greatest evil from which the system of University education suffers in India is that teaching is subordinated to examination, and not examination to teaching. We do not, however, see our way to advocating a proposal which involves a departure from the practice of all Universities without, as it seems to us, any security that it would attain the object aimed at. In our opinion the suggestion is quite impracticable however admirably the teaching in colleges may be conducted. A man becomes a graduate, not of a particular college, but of the University, and it is not possible to contemplate his being examined for a degree by the staff of the college to which he belongs, without the assistance of outside examiners. Once the latter are called in, the change advocated would be tantamount to the establishment of many University examinations in place of one.

General Scheme of Examinations.

157. The general scheme of examinations in the Arts course at the Universities is (*i*) the Entrance or Matriculation Examination, (*ii*) the First Arts or Intermedi-

ate Examination, (*iii*) the Examination for the degree of B.A. and (*iv*) the Examination for that of M.A. A student has to continue his studies for two years after passing the Entrance Examination before he can appear at the First Arts or Intermediate Examination, and the same interval must occur between his passing the Intermediate Examination and his appearing at the examination for the degree. At the Bombay University there is a fourth stage, the Previous Examination, which has to be undergone a year after the Entrance has been passed. This Examination was originally instituted to provide for a bifurcation of courses as between Arts and Science at the end of the first year. The examination has been defended on the ground that students would become idle if the University did not examine them until two years after Matriculation. The result has been, it is said, to improve the second year's class preparing for the Intermediate Examination. The Previous Examination would thus appear to be considered necessary, chiefly because the Matriculation Examination, as at present conducted, does not ensure that an undergraduate shall be fit to undertake the course of study at the University. If an examination is required after the first year of life at the University in order to prevent a student from becoming idle, it would, it seems to us, be equally necessary to have a similar examination at the end of the third year. We have no doubt that some test is required at these periods of an undergraduate's course of study. It is, however, generally imposed by means of college examinations—an arrangement which, if the colleges do their duty, should be as effective as a Previous Examination, while it involves no increase in the number of public examinations. The evidence given to us at Bombay shows that local opinion is by no means unanimous as to the value of this examination, and inasmuch as the original reason for the retention of the examination disappears under the plan of studies in Arts and Science which we have recommended, our opinion is that the Previous Examination should be abolished. In our outline of courses of study, we have indicated that the stages of preparation for the B. Sc. degree should be equal in number to those for the B.A.

158. Some schemes have been put before us which involve an alteration in the character of the course for the degree of Bachelor of Arts. It is suggested that the Matriculation standard should be raised, that the Intermediate Examination should be abolished, and that the B.A. course should be reduced to three years. We are decidedly of opinion that the standard at Matriculation should be raised for the reason that the test now imposed as a preliminary to the four years' course leading up to a degree is not sufficiently severe to ensure that those who enter a University are fit for the courses of study laid down for them. We doubt, however, whether the ordinary B.A., who had passed a higher standard at Matriculation than at present and studied for three instead of four years at the University would be a better product than the man who graduates under existing conditions. What we have to aim at is the improvement of the student when he becomes an undergraduate with a view to the ultimate improvement of the graduate. We have therefore no hesitation in setting aside the proposal to reduce the University course from four to three years. We do not approve the suggestion that the student would gain by spending a year more at school if this involves his spending a year less at college. At the three older Universities, a three years' course was originally instituted, but experience has led Calcutta, Madras and Bombay to prefer a course of four years.

159. We think it desirable that there should be uniformity in the nomenclature of the examinations and degrees in Arts and Science at the different Universities. We therefore suggest that the three examinations should be called the Matriculation Examination, the Intermediate Examination and the Examination for the degree of B. A. or B. Sc. respectively.

MATRICULATION.

160. The most difficult matter in connection with the University course is the framing of rules for the Matriculation Examination. The chief complaints made against the existing system are that the number of candidates is so large as to make the examination unwieldy: that the standard is uncertain, mainly owing to the

same examiner being unable to assess all the answers to the same paper : that, by reason of the fact that a certificate of having passed it is a passport to employment in Government and private offices, numbers of young men unsuited for a University education present themselves as candidates, and that the subjects prescribed and the tests imposed are unsatisfactory and inadequate, particularly in English. We believe that variations of standard in this examination are partly due to the fact that inexperienced examiners are sometimes employed for the Matriculation work, before they are considered fit to set or look over papers in the higher examinations.

161. It has been suggested that each college should be allowed to matriculate students at its own discretion. We do not accept the suggestion: it seems to us that a certain uniformity of practice is desirable. It would not be easy to work the transfer rules above recommended, if each college may have its own standard.

162. The results of the Matriculation Examinations at the different Universities for 1901 were as follows:—

	Number of candidates.	Number who passed.	Percentage of successful candidates.
Madras	7,413	1,423	19·2
Bombay	3,731	1,218	32·6
Calcutta	6,135	3,307	53·9
Allahabad	1,723	607	35·2
Punjab	2,748	1,398	50·9

Thus out of 21,750 candidates from the whole of India, 7,953, or about 36 per cent., passed. Of those who qualify for Matriculation a considerable proportion do not appear at any of the subsequent University examinations. We were told that at Calcutta about 1,400 more candidates would have failed had the standard in English been 40 per cent. of the marks instead of 33 per cent. It is, we fear, impossible to avoid the conclusion that, as a test whether a student is fit or not for University life, the present Matriculation examinations are inadequate and uncertain. Improvement can be effected in two ways: firstly, by drawing away from the examination candidates who ought not to appear at it, and, secondly, by raising the standard. We shall make proposals for effecting both these objects.

The Age Limit for Matriculation.

163. No candidate can appear at the Matriculation Examination at the Allahabad University unless he has attained the age of 16 at the time of examination. There is no limit of age at any other University, though the age of 16 was prescribed in the earlier regulations of the Universities of Calcutta, Madras and Bombay. The rule was abrogated, we understand, because some members of the Senate were opposed to any age limit, and also because the earliest age at which candidates could then compete at the Indian Civil Service Examination in London was 17 and the latest 19, and the age limit might debar students of Indian Universities from competing. This latter reason lost all its force with the raising of the minimum age limit at the competition for the Indian Civil Service to 21. There is considerable difference of opinion as to the fixing of an age limit for the Matriculation Examination. Those who oppose the suggestion do so for two main reasons. They contend, in the first place, that it would have the effect of keeping back specially brilliant students, and, secondly, that it would encourage false statements regarding age which it would be difficult, if not impossible, to detect. We have carefully considered these arguments, and, in our judgment, there is a complete answer to each of them. In the interests of the students themselves, it is, we consider, desirable to check the tendency of Indian parents to press their boys forward so as to matriculate at the earliest possible age. We have had opportunities of observing the deplorable results which this over-pressure produces in the physique of precocious boys. On physical grounds alone, it is desirable to prevent boys of 11 or 12

from appearing at the Matriculation Examination. But there is a still stronger argument in favour of fixing an age limit. We have already expressed our opinion that a clear line should be drawn between the school-boy and the under-graduate, and we cannot imagine that any one will contend that boys under 15 are, as a rule, fitted for collegiate life. The hostel system cannot be worked with good effect if boys are sent to college before they are old enough to appreciate the advantages and to understand the responsibilities of their new life.

164. We may admit that when a minimum age limit for appearance at the Matriculation Examination was in force, it was successfully evaded by some candidates. We think, however, that too much has been made of this difficulty. The age of every boy ought to be ascertained and recorded when he first goes to school. At that time there is no inducement to state it incorrectly. When there is any doubt, the master of a school, at which a boy is entered at the age of from 6 to 8, will be able to record his age with reasonable accuracy. Starting from this basis the boy's age ought to be continuously recorded in the register of his original school, or in his transfer certificate when he leaves it for another school, until the time when he becomes qualified to compete at the Matriculation Examination. It should be possible to carry into effect, with reasonable precision, a rule restricting candidates from matriculating until they have reached a certain age, and it is in every way desirable that such a limit should be fixed. There is much to be said in favour of fixing the age at 16, and some of us would have preferred this limit were it not for certain difficulties of detail. A medical student, for instance, if debarred from appearing at the Matriculation Examination until 16 years of age, would not be able to obtain his medical degree or diploma till 23, a year later than he would be able to begin to practice in Great Britain. Upon the whole we think that it will be sufficient to fix the minimum limit of age at 15 as has recently been recommended by a Committee of the Senate at Calcutta, and to require a candidate to have completed his fifteenth year at the date on which he appears at the examination. We think that this limit should be adopted at all Universities.

165. It has further been suggested that there should be a maximum age limit beyond which a candidate should not be permitted to appear at the Matriculation Examination. We do not think it desirable to exclude any candidate solely by reason of his having passed a certain age, but we are of opinion that candidates of mature age should be debarred from appearing at the examination year after year. We therefore propose that no candidate should be allowed to appear for Matriculation more than three times, whether at one or at several Universities. We think that this rule will not exclude from the examination any candidate who is really fit to pass it, but, to meet any case of hardship, power might be given to the Syndicate to make exceptions to the rule for special reasons to be recorded in each case.

Private Students.

166. The existing rules regarding the appearance of private candidates, *i.e.*, candidates who do not appear from a recognized school, operate very prejudicially in allowing unsuitable candidates to appear at the examination. The results of this practice seem to us to be especially bad at the Madras and Bombay Universities. At the Matriculation Examination held in 1901 at the former University 1,969 candidates presented themselves as private students, of whom only 262 passed. At Bombay in 1901, 1,447 candidates were private students and of these only 148 passed. The regulations in Madras exempt any candidate who produces a certificate from a Fellow of the University or from the head-master of a recognized high school to the effect that he is of good character and that he has completed his twentieth year, from the certificate of attendance at a school. A candidate for Matriculation at Bombay has simply to forward with his application to appear at the examination a certificate of his schoolmaster, teacher, or guardian assenting to the application. When an applicant has attended a school or public institution within eight months of the date of his application, this form must

be signed by the master of such school or institution. Out of the 21,750 candidates at all the Matriculation Examinations in 1901, 4,777 were private candidates and of these only 716 (or 15 per cent.) succeeded in passing. It is not possible altogether to exclude the private candidate from the examination. Some boys are physically unfit for school life, and there are wealthy parents of high position whose wish to have their boys privately educated may reasonably be respected. But it seems to us that the appearance of private candidates should be restricted by proper rules, and that the necessary check can be best applied by the general adoption of the rule in force at Calcutta. That rule requires every private candidate to obtain a certificate, which need not be given unless special circumstances justify it, from the Educational Inspector of the Circle in which he lives, to the effect that, as the result of a test examination held by the Inspector himself or of the ordinary test examination of a high school, it seems reasonably probable that he will pass the examination. At the last Matriculation at Calcutta there were 211 private candidates, of whom 53 passed. The general adoption of the rule in force at Calcutta should thus serve to bring the number of private candidates within reasonable limits. In some cases pupils who ought to have come up from a recognized school, but have failed to comply with the rules, are allowed to appear as private students. This practice ought, we think, to be checked.

167. The regulations generally require a candidate appearing from a school to furnish a certificate of some kind from the head-master that he is likely to pass the examination. There is evidence that these certificates are sometimes given when they should be refused, and that the form of certificate required at some Universities is not altogether suitable. Whatever the form of the certificate may be, there is always a risk that it may be given in contravention of the spirit of the regulation. We are in favour of a simple certificate to the effect that from the results of class exercises and test examinations the candidate is considered likely to pass. A check on the action of head-masters will be provided if recognition is withdrawn in cases where certificates have been granted without due care.

168. To complete our survey of this part of the subject, we desire to express the opinion that no private student should be admitted to the Intermediate Examination, or to the examination for the degree of B.A. or B.Sc., unless by a special order of the Senate, to be justified by reasons to be recorded in each case at the time of making the order. At Madras such orders appear to have been made without sufficient justification, and the power of passing orders has been delegated to the Syndicate. On both points we consider the Madras practice to be unsatisfactory, and we suggest that the Acts of Incorporation may be so strengthened as to prevent any laxity in this important matter. The Punjab University, which admits private students to all its examinations, must, we think, be brought into line with the other Universities of India.

Matriculation and Government Service.

169. The changes in the regulations of the Universities, which we have suggested above, should have the effect of withdrawing from the Matriculation Examinations a number of candidates, who now appear at them, and who should not, in our opinion, be permitted to do so. It remains to consider the question of the recognition of the Matriculation Examination as a test for Government Service. It is not necessary to enumerate the posts for which success in the Matriculation Examination is either a preliminary or a complete qualification. It is sufficient to say that they are fairly numerous, while we have been informed in evidence that a preliminary qualification for appointment to certain Government posts is a certificate, not of having passed the Matriculation Examination, but of having appeared at it. There is a considerable body of opinion to the effect that it is desirable, in the interests of University education, to restrict a Matriculation Examination held by a University to those who intend to enter a college. Logically, indeed, this opinion would appear to us incontrovertible, but some witnesses have represented that, if Government institutes some test other than the Matriculation Examination for entrance into the middle grades of the public service, the Universities will be affected prejudicially. We have no

doubt that such action by Government would cause a substantial diminution in the number of candidates for the Matriculation Examination. The financial question may require consideration; but we should regard with satisfaction any change which would restrict the number of candidates. In cases where the Matriculation Examination qualifies for admission to a professional examination, we suggest that the School Final Examination may be substituted for it.

170. We have been informed that the Government has it in contemplation to establish a School Final Examination in each province at the end of the secondary course. Such examinations have already been instituted in Madras, Bombay and Allahabad, but so far do not appear to have been altogether successful. For this want of success, however, there are, as it appears to us, obvious reasons. The examinations at Bombay and Allahabad are conducted by the University, and some of the regulations regarding the examination at the former University have not been calculated to popularize it as compared with the Matriculation. We consider that the conduct of an examination such as the School Final, or the Middle School Examination in the Punjab, is altogether outside the functions of a University, and that any rules which assign such examinations to the Universities should be abrogated. A second reason for the unpopularity of these examinations as compared with the Matriculation is that a candidate who passes the latter is as likely to obtain a situation under Government as one who passes the former. It appears to us that until passing the Matriculation Examination ceases to be a qualification for employment under Government, that examination will always be more resorted to than a School Final Examination by those whose object is to obtain employment. Looking at the matter solely as it concerns the advancement of learning, we think that it would be of great benefit to the Universities if the Government would direct that a Matriculation Examination should not be accepted as a preliminary or full test of fitness for any post in Government service. There is one other aspect of the School Final Examination to which it is necessary to refer. It was suggested in evidence that a University might either accept the School Final Examination as a sufficient test for Matriculation, and discontinue the separate Matriculation Examination, or that it might supplement the School Final Examination by testing candidates for Matriculation in additional subjects. The former practice is already followed by the University of Allahabad. We have not before us sufficient information regarding the proposed details of the School Final Examination to justify us in making any recommendation on this subject. If any arrangement could be made by which there would be one public examination instead of two, it would be advantageous, and failing this, we should welcome a system under which a candidate for Matriculation would have to pass in certain subjects at the School Final Examination and to satisfy any additional requirements of the University at a separate examination.

Subjects of Examination.

171. Pending, however, the elaboration of details regarding the School Final Examination, it is necessary to consider the Matriculation Examination as a separate examination. We think that the only subjects in which a student should be examined are English, a classical language, Mathematics and History and Geography. We think that the examination in English should include unseen passages, grammar and composition, and translation from a vernacular into English, and that if the reduction in numbers will admit of it, there should also be an oral examination. Eventually we should hope that every student will be properly tested in his own vernacular at the School Final Examination.

In most cases the Matriculation Examination, as it now exists, also includes Drawing and a little Science. The examination in Drawing, which is a subject of great value to Indian students, should take place in the schools. We have already given our opinion in regard to Science teaching in schools.

172. As we have recommended a smaller range of subjects for the Matriculation Examination, we are of opinion that the standard for a pass should be higher than is usually the case at present. We think that no candidate should pass who

does not obtain 40 pe rcent. in English, and 35 per cent. in each of the other subjects. A minimum of 30 per cent. should be required in each of the English papers.

We have already referred to the subjects of study for the Intermediate Examination, and the different University degrees.

Examinations for Honours.

173. It was contemplated, when the Universities were established, that Honours courses should be instituted, and this intention has been carried out at the Calcutta University. We have now to consider whether it is desirable that there should be a separate Honours course. So far as the examinations are concerned, there are three alternative means of providing for an Honours course, *viz.*, (*i*) all students might be taught together and examined on the same papers, Honours being given to those who obtain more than a certain percentage of marks, or (*ii*) Honours courses might be defined by adding to the scope of each subject prescribed for the Pass course, separate papers being set for Honours men and Pass men, or (*iii*) special courses may be prescribed, candidates for Honours being allowed to specialize after the Intermediate Examination. The second course has been followed at Calcutta. The third alternative involves considerable expense, as it necessitates the doubling of the number of lectures. It is also, we think, undesirable, as it involves specialization at too early a stage. The evidence is, we think, conclusive that the introduction of Honours courses at Calcutta has depreciated the Pass degree of B.A., and for this reason it will, if they are abandoned, be necessary to raise the standard of the Pass examination. Upon the whole, we are disposed to think that the examination for the M.A. should be regarded as the Honours Examination.

Mutual Recognition of Examinations by Indian Universities.

174. The question of the recognition by one University of the examinations of other Universities requires some consideration. The Madras University is at present the most exclusive in this respect, as it does not in practice recognize the examinations of other Universities except in the case of those students who have *bonâ fide* changed their residences. At Bombay the examinations of other Universities may be recognized, if accepted by the Syndicate, at the examinations before that for the M.A. degree, but a candidate for that degree must be a Bachelor of the Bombay University. Graduates of other Universities may be admitted to the M.A. examination at Allahabad by grace of the Syndicate. As we have said elsewhere, we do not advocate uniformity in everything at the different Universities, but we think that the standards should be as nearly equal as possible. That this result has undoubtedly not been attained in the past justifies to some extent the difference of practice as to the recognition by one University of the examinations of another. We trust that our recommendations will lead to equalizing the standards to such an extent as to simplify the mutual recognition of examinations by the Universities. Given an approximately equal standard, it is desirable that one University should at all events recognize the examinations of another antecedent to the examination for the M.A. and the corresponding degrees in other Faculties. A candidate who desires to transfer himself from one University to another may, however, be required to show some reason (such as *bonâ fide* change of residence) for his application.

Dates of Examinations.

175. We think that each University should consider whether some improvement cannot be effected in the dates at which the examinations are held with the object of distributing the work of the colleges more evenly over the academical year. The terms and vacations of the colleges vary a good deal: certificates of attendance at lectures are given some time before the examinations take place, and, once in possession of their certificates, many students cease to attend lectures: preparatory leave is given to students before appearing at an examination, and there is great delay in bringing out the results of the examinations. The character of the seasons in different parts of India presents an insuperable difficulty to the adoption of the same programme for each

part of the academical year by every University, but we consider it of the greatest importance that steps should be taken to improve the present arrangements, which, in some places, practically result in no work being undertaken during half the year. It is plainly convenient that examinations should be fixed at such dates that they may follow closely on the period of instruction, and that a vacation may be given immediately after them.

Places of Examination.

176. We regret to find that in some cases examinations are held in unsuitable buildings or temporary shelters. With a view to the health of the candidates, the Syndicate should give attention to this matter, and should not leave the selection of places of examination to local authorities.

The question whether centres of examination should be many or few must be left to each University to decide. If centres are few, large numbers of young men are compelled to migrate to a distance from their homes in order to appear at the examination. If, on the other hand, centres are multiplied, the risk of misconduct or accident in the distribution of papers is considerably increased.

Appointment of Examiners.

177. We are of opinion that examiners should, as heretofore, be appointed by the Syndicate. Some exception has been taken to a rule that persons desirous of being appointed examiners must apply to the Syndicate to be appointed. It is represented that not only does this lead to applications being received from persons unfit to be examiners in the subjects in which they apply to be made examiners, but that it also prevents men, admittedly fit to be examiners, from being appointed. Applications ought not, in our opinion, to be invited ; and while the Syndicate should receive and consider any applications that are made to it, it should also, by means of inquiries made either by itself directly or from the Principals of colleges, endeavour to secure the services of the best examiners available.

178. Objections have been stated to the rule which prevents teachers from being appointed to be examiners in the subjects which they teach. The rule is defended on the ground that experience shows that, even with the fairest intentions, teachers appointed to be examiners in the subjects which they themselves teach, may by the nature of their questions favour their own students ; that the public have more confidence in an outside examiner than in a teacher ; and that it is the practice for students, who have learnt that a particular Professor has been appointed to examine in any subject, to obtain notes of lectures delivered by him, and to learn them off for the examination. On the other hand, there can, in our opinion, be no question that a teacher in most cases makes the most efficient examiner, and some examination papers set by persons other than teachers have been condemned—justly as it seems to us—for defects due to want of knowledge of the manner in which the subject examined had been taught. Upon the whole we should prefer to see the rule, that teachers may not examine in the subjects which they teach, abrogated. We think, however, that, whenever a teacher is appointed to be an examiner in a subject which he has taught to any students appearing at the examination, he should be associated with another or others not engaged in teaching the subject, and that the examiners should act as a Board and set the papers jointly.

The rules which debar members of the Syndicate from being examiners appear to us to be unnecessary and unreasonable. We, therefore, recommend that they should be rescinded wherever they are in force.

We need only add with regard to the appointment of examiners that, when more than one examiner is appointed, the examiners should be formed into a Board, of which one should be appointed Chairman and that the Board should meet to set the papers and to settle the results of the examination.

179. At Calcutta papers are set in some cases by gentlemen who do not examine. There are objections to this arrangement, and we should prefer that papers should, wherever this is possible, be set and looked over by the same persons. As, however, a large number of examiners have sometimes to be appointed in one subject, it is not always possible for every one, who is to look over

the answers to a paper, to take a part in setting it. In such cases the paper should, we think, be set by a sub-committee of the Board.

Methods of Examination.

180. We have received many complaints in respect of the style of papers set, especially in English, and we feel bound to state our opinion that many papers have been so framed as directly to encourage cram, and to deprive the student who has studied a subject properly of the advantages of such study. Catch questions and questions which can be answered at second-hand have been far too numerous. A good examination paper is a work of art, and it is above all things necessary that the examiner should be able to look at his questions from the candidate's point of view, and that he should frame them so as to give the latter a series of opportunities of showing how far he possesses an intelligent and first-hand knowledge of the subject-matter. We consider that easy questions are best suited for this purpose. Such questions enable a really good scholar to distinguish himself, while the average student puts down what he knows without waste of time. In Mathematical papers it is desirable that problems suitable to the standard of the examination should be attached to questions on book-work, so as to enable the examiner to ascertain whether the book-work has been mastered or merely committed to memory. We disapprove of the Calcutta and Madras rules which require that a high percentage of marks should be assigned to mere book-work.

181. We are disposed to think that the practice of noting the number of marks assigned to each question in an examination paper is objectionable. We prefer that a candidate should be given a choice of questions in each paper and should be directed to answer only a certain proportion of those set. We doubt, however, whether the discretion of the examiners should be fettered by a rule regarding a question of detail such as this, and we recommend that they be given a free hand, at all events in all advanced examinations, in such matters.

182. We have had before us a number of regulations and rules which prescribe percentages of marks for a Pass and for Honours. We are unable to suggest any system of marking, by means of which percentages can be dispensed with altogether. We fear also that it is impossible to avoid publishing the standard which must be reached in order to pass an examination. Publication encourages a calculating habit of mind, so that some students avoid learning more than is necessary. If, however, the rules as to the standard required were embodied in unpublished instructions issued by the Syndicate to the examiner, still greater evils might result from the ease with which the standard could be altered.

183. When papers have been marked by the different examiners, they should, we think, be returned to the head examiner, who should examine a certain number taken at random, with a view to assuring himself that the examiners are observing the same standard. The Board of Examiners might then be convened to settle the results. Where a candidate has failed in one subject only and by not more than 5 per cent. of the full marks allowed for it and has shown merit (which we would interpret to mean: has gained 50 per cent. of the marks) in the aggregate of the other subjects, we consider that he should be passed. If a rule of this kind were made, grace marks and similar devices would become unnecessary, and they should, we think, be expressly forbidden.

184. In the Bombay Matriculation Examination it has been the custom to examine the papers in English first, and to send to the Registrar the numbers of those candidates who pass in that subject. In other subjects, the examiners are directed to look over and mark only the papers of those candidates who have passed in English. This practice effects a considerable saving of labour and expense, and it may be adopted with advantage in other Universities.

185. Objection has been taken to the publication of the marks obtained by candidates. We would not object to candidates knowing the marks they have obtained. For this information they should, we think, be required to pay a fee. We think it better that in the authoritative publication of the results of examinations candidates should be entered in alphabetical order in the class or division to which they belong. Any order of merit which takes account only of the marks obtained must be misleading; the candidates who take certain subjects can put together more marks than other candidates (it may be, equally meritorious) who take up other subjects.

109253

"Examination by Compartments."

186. At Madras, where the subjects of the B.A. Examination are arranged in three divisions, a candidate is allowed to appear in one division, or in two divisions, or in all three, in any one year. It appears that in some cases this rule has worked well. A college, on finding that a student at the end of his third year has made but little progress, may require him to devote his fourth year to English and to his second language, and to postpone his third subject to his fifth year. On the other hand, the rule works badly, in so far as it tempts men to try their chance in all three divisions, in the hope of securing a pass in one or two.

The system which is called "examination by compartments" has been advocated by several witnesses, and in particular it has been represented to us that a candidate who fails in one subject should be allowed to pass on satisfying the examiners in that subject, and should not be required to bring up all his subjects again.

After full consideration, we have come to the conclusion that the disadvantages of the Madras rule outweigh its advantages, and that examination by compartments ought not to be allowed. The object of an examination is to ascertain whether the candidate possesses all the knowledge which may fairly be expected of him at the stage which he has reached; and a man who passes in all his subjects at one time gives better evidence of the soundness of his general education than the man who can only pass in the subjects taken separately. Care must be taken, in framing the programme of an examination, to see that the subjects are not so numerous as to lay an undue burden on the minds of the candidates; but if this condition is complied with, we think it better that the examination should be treated as a whole, and not broken up into sections.

Candidates Failing to Pass.

187. An important question has been raised in regard to those candidates who fail at the Intermediate and the degree examinations, and who wish to appear again. Should they return to their colleges and go through the course of study, or part of it, over again? We consider that the case of each candidate should be dealt with separately, and that the question may be left to the colleges. But we recommend that the certificate which enables a candidate to appear at an examination should, in every case, be a new certificate, granted for that examination. In the case of a failed candidate, his certificate should show whether he has gone through any additional course of study since his failure. If a student who has passed or failed at an examination desires to go to another college, the transfer rules should require him to obtain a leaving certificate.

Percentages.

188. Our attention has been frequently called to the fact that undue importance is attached to the percentage of passes obtained by each of the affiliated colleges. If a percentage statement is to have any meaning, it ought to show, not merely the number sent up, but the number of second or fourth year students, as the case may be. But all such statements are apt to be misleading. If, for example, a college sends up one student, and that one satisfies the examiners, the college scores 100 per cent. of passes. We trust that these considerations will be borne in mind by the Syndicates and the Directors of Public Instruction in framing their reports on colleges.

UNIVERSITY FUNDS.

189. Speaking generally the three older Universities and the University of Allahabad derive their income from examination fees and spend it on establish-

ment and the conduct of examinations. In the year 1900-01 the ordinary income and expenditure of these Universities was as follows:—

	Rs.
CALCUTTA—	
Income	2,44,644
Expenditure	2,10,455
Surplus	34,189
MADRAS—	
Income	2,18,353
Expenditure	1,91,688
Surplus	26,665
BOMBAY—	
Income	1,31,676
Expenditure	1,15,541
Surplus	16,135
ALLAHABAD—	
Income	52,763
Expenditure	49,184
Surplus	3,579

During the five years ending on the 30th June 1901, the average annual surplus of the Calcutta University was Rs. 30,128. The University was able to invest Rs. 67,646 during the year 1900-01 and at the end of that year had a funded reserve of Rs. 5,05,000. In the same year the University of Madras invested about Rs. 50,000 bringing the total of its balance in Government securities to Rs. 3,83,700. The reserve fund of the University of Bombay consists of Rs. 2,90,000. The University of Allahabad possessed at the end of the year securities to the value of Rs. 34,000.

190. The aggregate fees charged to students for the series of examinations ending with the B.A. are in the Universities of Calcutta, Allahabad and the Punjab Rs. 60, and in the Universities of Madras and Bombay Rs. 72. It has been estimated that if the Calcutta fees were raised to the Madras level by increasing the Entrance fee from Rs. 10 to Rs. 12, the F.A. fee from Rs. 20 to Rs. 24 and the B.A. fee from Rs. 30 to Rs. 36 an additional income of Rs. 42,000 would be secured; and that if the B.L. fee were enhanced from Rs. 30 to the M.A. level of Rs. 50, a further income of Rs. 12,000 would result.

191. If the Universities are to incur additional expenditure in order to improve the education of their students it is not unreasonable that they should charge somewhat higher fees, and it would seem possible for the University of Calcutta by the expenditure of a portion of its large reserve, and a by no means burdensome enhancement of its fees, to provide a substantial sum for new expenditure. Taking into account that its scale of fees is higher than that of Calcutta the University of Madras is not so well off, but it would seem to have a sufficient surplus and funded balance to spend something on supervision and the improvement of its library. The funds at the disposal of the University of Bombay are smaller, but they will be increased if the University abandons the Previous Examination without reducing the aggregate fee for the Arts course. The income and surplus of the Allahabad University are too small to admit of any considerable expenditure outside examination work.

192. It would not seem possible for any of the Universities to spare money from their ordinary funds to defray the large cost of post-graduate or scientific teaching. Nor, except in the case of Law (if and when the Universities take up that subject), are the fees of the students attending the lectures likely to cover a substantial portion of the expense. The following sources of income have been suggested:—

(1) endowments,

(2) Government contributions, and

(3) contributions from affiliated colleges.

The Tagore Law Professorship Fund of Rs. 3,00,000 is the only considerable private endowment for teaching work. The other endowments held in trust by the Universities are mainly for scholarships and prizes and consist mostly of small sums. Calcutta has the Premchand Roychand Studentship Fund with a capital of Rs. 2,38,000 and 40 other endowments with an aggregate funded capital of Rs.

1,64,000. Madras has 34 funds for scholarships, prizes and medals with a capital of Rs. 1,50,400. Bombay has the much larger capital of Rs. 10,43,500 divided among 94 funds, mostly of small amount. It has been pointed out that full advantage is not taken of the scholarships and prizes to which these funds are devoted. In 1900-01 the interest on the capital amounted to Rs. 38,482, while the expenditure amounted only to Rs. 23,576, and the revenue balance at the end of the year was Rs. 74,175. The question might perhaps be considered whether it would be possible to utilise this surplus. Allahabad has only six scholarships, etc., with an aggregate capital of Rs. 17,300.

The opinion has been expressed that if the teaching functions of the University are fully recognised some thing may be expected from private liberality. The formation of central Schools would no doubt encourage local interest in University work.

Government aid might be given by direct subsidy, by lending the services of its own Professors, by enabling the University to obtain the services of Professors in private colleges and by providing laboratories, etc. Without some such aid it will not be possible for the Universities, at any rate at the outset, to take over a large share of the work of advanced teaching. Should the Government grant aid in any of the above modes it will no doubt desire to retain a measure of control sufficient to ensure that the assistance it affords is utilised in accordance with its views.

College assistance may, to some extent, be relied on. The colleges will at least contribute to the maintenance of hostels for their students at the University centre, and will also contribute to the funds of the University in return for being relieved of the financial burden of advanced teaching.

193. The University of the Punjab stands apart. It already undertakes the direct management of the Oriental College and the Law School. For this purpose it has endowments and receives grants from the Government. But these would be insufficient to secure financial equilibrium had not the Government given further support by entrusting the University with the control of the Middle School Examination, which last year yielded a surplus of about Rs. 12,000. In the year 1900-01 the total general income of the University amounted to Rs. 1,71,582, made up as follows :—

	Rs.
Subscriptions and interest	12,062
Government grants	29,380
Fees	1,27,715
Other items	2,425

The general expenditure amounted to Rs. 1,54,435 :—

	Rs.
Oriental College allotment	21,880
Teaching	19,629
Examinations	81,070
University establishment and miscellaneous	28,410
Other items	3,446

The surplus for the year was Rs. 17,147 and the balance at the end of the year Rs. 1,53,570. There is a general endowment fund of Rs. 1,89,600, the interest on which goes towards the expenses of the University, and special funds of an aggregate value of Rs. 2,97,100 which support a translatorship and various readerships in connection with the Oriental College, and endow a number of scholarships, prizes and medals. On its present lines the University is not in a financial position to enlarge its scope of action.

194. In concluding the section of our Report which deals with financial questions it seems necessary to point out that the acceptance of our recommendations must inevitably lead to increased expenditure in many directions. While we hope that in many parts of India they will furnish an opportunity to public-spirited and generous benefactors of education, we trust that Government may not be unwilling to reconsider the scale on which it supports and aids the various colleges on which to so large an extent will depend the accomplishment of the reforms that have been sketched in this Report. We have laid down standards of college efficiency and equipment considerably in advance of those hitherto accepted and any such change in our college system will impose upon the Universities also corresponding duties in relation to examinations,

control of colleges, and the provision of the means of post-graduate instruction in certain departments. These reforms if they are to be carried out on the lines indicated in our Report, must mean an increase of both college and University expenditure. Such education can never hope to become self-supporting. Judged by the standard of Universities in other countries, the achievements of the Indian Universities have always seemed poor; but when we consider that, in countries in which the Universities depend on direct subventions from the State, the larger proportion of the cost has to be supplied by the funds of the State, we feel constrained to say that unless by Government aid or otherwise the financial position of the Universities can be materially strengthened, the prospect of any thorough change for the better must be indefinitely postponed.

LEGISLATION.

195. We have recommended certain changes in the constitution of the Universities, and we have expressed the opinion that these changes do not involve the repeal of the existing Acts of Incorporation. The Legislature may give effect to our proposals by passing a General Indian Universities Act, which would be construed as supplementing and amending the Acts of Incorporation. If such a measure be framed in accordance with our recommendations and suggestions, it will be in substance as follows:—

(*a*) It would be declared that the University is incorporated for the purpose of making provision for teaching and study, with power to found Professorships and Lectureships, and to receive and hold endowments of an educational character.

(*b*) The constituent authority would be empowered to appoint the new Senate: the powers of the old Senate would be transferred to the new body: the quorum for a meeting of the Senate ought, we think to be fixed at 15 or possibly 20: and the position of existing Fellows, not appointed to the new Senate, would be defined. Power would be given to make rules for the election of Fellows and to appoint Honorary Fellows.

(*c*) The Syndicate would be recognized as the executive authority of the University, and the Vice-Chancellor as its Chairman.

(*d*) The relation between the University and affiliated institutions would be more precisely determined: the doubts which have been raised as to the meaning of section 12 in the Calcutta, Madras and Bombay Acts would be removed: and the procedure on affiliation and disaffiliation of colleges might be prescribed in general terms: and it should, we think, be enacted that all applications for affiliation, and all proposals to disaffiliate a college are to be submitted to Government together with the grounds of the Syndicate's decision thereon, and that Government should be empowered to pass final orders. Periodical revision of the list of affiliated institutions may also be directed.

(*e*) Provision may be made for a Register of Graduates, as proposed in our Report.

(*f*) The Director of Public Instruction of the Province in which the University town is situated should be made an *ex-officio* Fellow, and Vice-Chairman of the Syndicate.

(*g*) If the changes recommended in this Report are necessary, and if they are to be carried out in all the Universities, it seems to us that the Governor General in Council should be empowered to frame new Regulations for each University. We assume that this power would be exercised, in each case, in consultation with the Local Government and with the Senate. Regulations made under this power should be liable to alteration by the Senate with the sanction of Government.

(*h*) The Lieutenant-Governor of Bengal would be created Rector of the University of Calcutta, with precedence next to the Chancellor, but without prejudice to the right of the Vice-Chancellor to preside at meetings of the Senate.

196. In submitting these recommendations, we desire it to be understood that the process of improvement must be gradual; and that all existing interests, whether of teachers or of students, must be carefully respected. For the success of our scheme we would rely not merely on statutes and regulations, but on the voluntary co-operation of all who are interested in higher education. Up to the present time, there has been too little co-operation between Universities and colleges; in the future we trust that there may be more conference and communication between them, and that they may find the advantage of bringing their experience and their ideas into a common stock. Whatever new institutions may be given to the Universities, their working will depend on the characters and aims of the teachers in our colleges. And if the reformed University is to be anything more than a name, those who act in its name must bear in mind that the object of its existence is not the success of one college, or type of college, in competition with others, but the success of all the colleges in raising the general standard of attainment and research.

197. We shall perhaps be told that in attempting to indicate how the standard may be raised, we have framed proposals which may result in the withdrawal of some of the opportunities now offered to students in India. Under the system we advocate, the expense of college education will in many cases be increased, and it may be argued that the measures which we propose will have the incidental effect of narrowing the popular basis of the higher education. To this argument we reply that in all matters relating to the higher education efficiency must be the first and the paramount consideration. It is better for India that a comparatively small number of young men should receive a sound liberal education than that a large number should be passed through an inadequate course of instruction, leading to a depreciated degree.

198. Our colleagues, the Local Commissioners, are in no way responsible for the substance of this Report; but we are indebted to them for many valuable suggestions, and also for the care which they took to bring before us a representative body of witnesses.

We desire cordially to acknowledge the services rendered to the Commission by the Secretary, Mr. Nathan.

T. RALEIGH,
President.

GOOROO DASS BANERJEE.*

SYED HOSSAIN BILGRAMI.

J. P. HEWETT.

ALEXANDER PEDLER.

D. MACKICHAN.

A. G. BOURNE.

R. NATHAN,
Secretary.

SIMLA;

June 9th, 1902.

* Signed subject to Note of Dissent.

G. D. BANERJEE.

SUMMARY OF RECOMMENDATIONS.

Teaching Universities.

The legal powers of the older Universities should be enlarged so that all the Universities may be recognized as teaching bodies. Undergraduates should be left in the main to the colleges, but the Universities may make better provision for advanced courses of study and may appoint their own lecturers, provide libraries and laboratories, and see that residential quarters are maintained for students from a distance.

Local Limits of the Universities.

(1) The local limits of each University should be more accurately defined than they now are. Steps should be taken to remove from the Calcutta list the affiliated colleges in the Central Provinces, the United Provinces, the Punjab, etc. The Central Provinces and Central India should be assigned to Allahabad. The colleges in Ceylon which send candidates to Calcutta should be transferred to Madras, unless the Colonial authorities are prepared to make more suitable provision for their needs. The arrangement under which the Punjab Government holds University examinations at Lucknow should be reconsidered.

(2) If a college situated within the local limits of a University desires for any special reason to apply for affiliation in another University, its application should be addressed, in the first instance, to the local University, and the application should not be granted unless with the consent of both Syndicate and the sanction of the Government of India.

Proposals for New Universities.

The question of creating new Universities should be postponed until the changes now proposed in the constitution and working of existing Universities have been tested by experience.

The Senate.

(1) The authority by which Fellows are now appointed should be empowered to nominate a new Senate. The new governing body should be recruited mainly or partly from the existing Fellows, but the number should not exceed a maximum, to be fixed by statutory rule. One hundred would be a suitable maximum for the three older Universities, unless Madras should find a smaller number to be sufficient, and sixty would be sufficient in the case of Allahabad and Lahore. These numbers do not include *ex-officio* Fellows.

(2) Power should be taken for the constituent authority to distribute the Fellows according to Faculties.

(3) There should be in each University a Faculty of Arts, representing Languages, Philosophy, and History, and a Faculty of Science, representing the observational and experimental sciences.

(4) The proportionate numbers to be assigned to the several Faculties need not be the same in all cases. When 100 is the maximum, the following would be a suitable distribution : Arts 30, Science, Law and Medicine 20 each, and Engineering 10.

(5) The permission to elect Fellows which has been conceded to certain graduates in the three older Universities, and the provision in the Act of Incorporation of each of the two junior Universities for the election of Fellows by the Senate, should be retained and confirmed by statute. The constituent authority should be empowered to appoint to the new Senate a suitable number of existing elected Fellows, not exceeding one-tenth of the whole, and it should be arranged that Fellows of this class shall vacate their places in such a way as to secure regular annual elections for the future. Power may be taken to introduce election by the Senate in the older Universities, or election by graduates at Allahabad and Lahore.

(6) In some cases, and especially in the Punjab University, the list of *ex-officio* Fellows requires revision. The Director of Public Instruction should be, *ex-officio*, a Fellow and a member of the Senate.

(7) In the University of Calcutta the Lieutenant-Governor of Bengal should be made Rector of the University, with precedence next to the Chancellor, but without prejudice to the right of the Vice-Chancellor to preside in the Senate.

(8) Appointments to the new Senates should be for five years. In each year one-fifth of the appointed and elected Fellows should vacate their places.

(9) All appointments should be made on the clear understanding that the person appointed undertakes to attend the meetings of the Senate. The travelling expenses of members residing at a distance should be paid. Power should be taken to remove the names of those who, by change of residence or otherwise, have ceased to be able to take part in University business.

(10) Power should be taken to regulate elections, and, in the case of election by graduates, to prescribe, either generally or in reference to any particular election, the qualifications of the electors and of the persons to be proposed as candidates. The electors should be graduates of five, and the persons elected graduates of ten, years standing. There should be power to cancel the election of a candidate if the constituent authority is convinced, after due inquiry, that improper canvassing has been used on his behalf.

(11) Existing Fellows, not appointed to the Senate, should be permitted to retain the honorary distinction of a fellowship. Where the Fellows have the right to elect a member of a local Legislative Council, or of any Municipal body, all existing Fellows should be privileged to vote in the election.

(12) The distinction of an Honorary Fellowship may in the future appropriately be conferred on benefactors and others who have deserved well of the University.

(13) No Fellowship should in future be conferred merely by way of compliment.

(14) The Senate should be so composed as to give due weight to the opinion of the following classes of persons :—

(*a*) University and college teachers, especially heads of colleges.

(*b*) Persons distinguished by their attainments in any branch of learning and qualified to take part in University business.

(*c*) Representative members of the learned professions.

(*d*) Representatives of Government.

(15) No voting by proxy should be permitted in the Senate.

(16) A simple majority may suffice for the repeal or alteration of a Regulation, since the sanction of Government is also required in such cases.

Faculties.

(1) It is not necessary to insist on uniformity in the arrangement of Faculties. If Arts and Science be separated, there will be the five Faculties of Arts, Science, Law, Medicine and Engineering. Teaching may be fitly assigned to the Faculty of Arts, and Agriculture to that of Science.

(2) The establishment of a Faculty of Oriental Learning, in which degrees (as distinguished from titles) would be conferred without English is to be deprecated. Even candidates in the examinations for oriental titles should be encouraged to add English to their acquirements.

(3) Without forming a Faculty of Commerce the Universities might, in co-operation with the Chambers of Commerce, meet the growing demand for good commercial instruction. It is not necessary to raise at present the question of granting a degree in Commerce.

(4) It is neither practicable nor expedient to make provision for a Faculty of Theology.

Boards of Studies.

(1) The Senate, subject to proper rules of nomination and election, should appoint such Boards of Studies as it thinks necessary from among its own members.

(2) No book should be recommended by a Board, unless on the written report of some competent person who has read it.

(3) Questions relating to examination papers may be referred to the Board, but the Punjab rule requiring all objections to be so referred is unsuitable. Such objections ought to be laid before the Syndicate which should be free either to dispose of them or to refer them to the Board.

The Syndicate.

(1) The rule which prevails at Calcutta and Madras, that no Fellow is eligible to be a member of the Syndicate unless he resides in or near the University town, should be abrogated.

(2) The Syndicate should not be a large body. The minimum number may be placed at 9, including the Vice-Chancellor, and the maximum at 15.

(3) The Director of Public Instruction should be *ex-officio* a member and Vice-Chairman of the Syndicate. Except in this case, there should be no *ex-officio* appointments.

(4) The Syndicate should be elected by the Senate, the Syndics being chosen, subject to proper rules of nomination and election, in certain proportions to represent the several Faculties; the representatives of each Faculty to include one or more Heads or Professors of colleges according to the following rule: where not more than two members of the Senate are elected to represent a Faculty, one at least shall be a college Head or Professor; where more than two are thus elected, a majority at least shall be college Heads or Professors in that Faculty.

This rule is not intended to limit the proportion of the teaching element in the Syndicate. The proportion laid down may be exceeded, but the minimum secured by the rule must be insisted upon.

(5) The Syndicate should be recognised by law as the executive authority of the University, and some of its powers should be exercised independently of the Senate. It is undesirable that (*a*) appointments made by the Syndicate, (*b*) decisions in regard to affiliation and disaffiliation of colleges, and (*c*) exemptions from examination rules should be reviewed in the Senate.

Registrar and Staff.

(1) The Registrar should be a whole-time officer; he should be appointed by the Senate, with the approval of Government; his service should be pensionable; and his pay should be such as to secure the services of a person of high academic standing. In case of misconduct or neglect of duty, he should be liable to dismissal by the Syndicate, with the sanction of Government. When the Registrar is absent on leave, the Syndicate should have power to make an officiating appointment. No officiating appointment should be reviewed or discussed in the Senate.

(2) The subordinate staff should be permanent, and the conditions of employment should be fixed by the Syndicate with due regard to this consideration.

University and College Libraries.

Good reference libraries should be provided in connection both with Universities and colleges in order that students may have an opportunity of forming the habit of independent and intelligent reading.

Graduates of the University.

(1) There should be in each University a register of graduates ; a fee should be paid annually by those whose names and addresses are entered in the register ; and each registered graduate should receive a copy of the Calendar.

(2) The Senate should be empowered to remove from the register the name of any graduate convicted of an offence which renders him unfit to be a member of the University. The consent of two-thirds of the Fellows present and voting should be required for this purpose.

(3) Where electoral rights are conferred on graduates, persons whose names are not on the register should not be allowed to vote.

(4) It is premature to consider the establishment of a convocation of graduates.

Affiliation Rules.

New affiliation rules should be so framed for each University as to secure—

(*a*) That no institution shall be admitted to affiliation unless on the fullest information. There ought, in each case, to be an independent report by the Director of Public Instruction or some other competent authority, showing why the new institution is required and what are the guarantees for its financial stability.

(*b*) That no institution, once admitted, be allowed to fall below the standard of efficiency required for affiliation. The Syndicate should satisfy itself from time to time on this point. In most cases information will be procurable from the Director of Public Instruction, and it will not be necessary for the University to appoint an Inspector or Board of Inspectors, but members of the Syndicate should make it a practice to visit the colleges within their jurisdiction. The Syndicate should have power to order a formal inspection of an affiliated college at any time.

Governing Body of a College.

A college ought not to be dependent on the interest or caprice of an individual. Any surplus after the payment of salaries and other necessary expenses should be spent on the improvement of the college. There should be a properly constituted governing body for each college.

Teaching Staff of a College.

(1) The teaching staff must be adequate to the courses of study to be undertaken.

(2) There should be in every college a council or common room, in which the Principal and Professors should meet to arrange their work and compare notes about their pupils.

Buildings, Furniture, etc.

(1) The Syndicates should use every effort to ensure that the affiliated colleges are decently and suitably housed, and that there is adequate provision for the health and comfort of the students.

(2) Where space permits, the Principal and some of the Professors should reside in or quite near the college.

(3) Colleges and their surroundings should be made more dignified and more attractive than, in many cases, they now are.

Discipline of Students.

Indian students are rarely guilty of disorder, but they need close and friendly supervision, and each college should consider how this need is to be met. The system in force in the Muhammadan Anglo-Oriental College at Aligarh is commended to the study of other residential colleges.

Residence of Students.

(1) Students should be required to reside (*a*) with parents or guardians, (*b*) in lodgings approved by the University or by the college to which they belong, or (*c*) in a hostel, which may be defined as a place suitable for the residence of students and under University or college supervision.

(2) One or more of the members of the college staff should reside in or quite near the hostel. The superintendent should not be an upper servant, but a person able to exercise some authority over the residents. If it is not possible to give each student a room to himself, the sleeping rooms should be large dormitories, which are more easily controlled than cubicles holding two or three students.

(3) Hostels attached to a college should be directly under the control of the Principal, and each hostel should be reserved for members of the college, to the exclusion of outsiders.

(4) In course of time the provision of quarters for all students not residing with parents or guardians should be made one of the conditions of affiliation, at least for new colleges.

(5) Hostels ought not, speaking generally, to be built at a distance from the colleges to which they belong, or in an environment that is not clean and respectable.

Courses of Study.

(1) Affiliation should be granted, and from time to time renewed, not in general terms, but with more exact reference to the subjects and courses of study for which the college can make adequate provision.

(2) In considering whether the provision which a college proposes to make for a particular subject is adequate, the following points should be taken into consideration:—

(*a*) Whether the college can provide an adequate number of lectures. In many cases it may be found that the "adequate number" is considerably smaller than the number now given. Efforts should be made to discourage the kind of lecture which consists merely in dictating notes. The object of the lecturer should be to stimulate and guide the minds of his class; not to dispense them from the necessity of reading their books and thinking for themselves.

(*b*) Whether the college provides its students with adequate tutorial assistance. This ought in all cases to be regarded as an essential part of college work. Where a college possesses a body of Fellows, it is desirable that such Fellows should give a part of their time to tutorial work.

(*c*) Whether the students have access to a library and to laboratories, etc., where required. The student should spend only a limited number of hours per diem in class; during the rest of his working time he should be reading, writing and inquiring for himself—not committing his lecture notes to memory.

(3) The certificate that a student has pursued a regular course of study should be so framed as to show that he has gone through a course of study approved by the University as above described. All rules which require merely a percentage of attendance at lectures should be recast or abolished.

Fees.

(1) Two primary considerations should be observed in the settlement of fees: firstly, that they must not be pitched so high as to check the spread of education, and, secondly, that they must not be fixed so low as to tempt a poor student of but ordinary ability to follow a University course which it is not to his real interest to undertake.

(2) No poor but really able student should be excluded, by reason of his poverty, from the advantages of the highest education, but these should be secured

for him not by charging nominal fees, by the indiscriminate bestowal of free studentships, or by the establishment of free colleges, but by a comprehensive and liberal system of scholarships. Scholarships should be provided by the State open to general competition as the result of University examinations, and tenable at any affiliated college, as well as by the managers of aided and private institutions for students at their own colleges. If free studentships are permitted, they ought not to exceed 3 per cent. of the total number of students on the roll.

(3) The Syndicate of each University should, in consultation with the managers, prescribe a minimum rate of fees for the colleges affiliated to it, after taking into consideration local circumstances, the demand for higher education, and the ability of the class of students who are likely to attend the institution to pay adequate fees for such instruction. This rate will be primarily applicable to the circumstances of colleges which obtain no pecuniary aid from Government. The State should fix the fees at both Government and aided colleges, at a rate higher than the minimum determined by the University, the rate at the former being necessarily fixed higher than at the latter class of colleges.

(4) The University should deal specially with the case of colleges which are maintained by rich benefactors on condition that no fees are charged, or the promoters of which are induced by religious, patriotic or philanthropic motives to give their services as teachers free or for very small remuneration, with the express object of reducing the fees payable by students to the lowest point possible. Provided that the University is satisfied that such an institution is properly furnished with teachers; adequately equipped with teaching apparatus; is in receipt of no grant-in-aid from the State; and that the resources available to the promoters are sufficient to maintain it in full working order for a reasonable period, it should be exempted from the strict operation of the rule prescribing a minimum rate of fees.

In the case of such exceptional institutions a limit should be placed on the number of students admitted on payment of no fees or on reduced fees below the minimum fee laid down by the University, such limit to be based on the strength of the teaching staff, and the facilities for instruction.

Transfer of Students.

(1) No transfer should be permitted in the middle of a term, or indeed in the middle of a course of study, unless for special reasons to be recorded in writing by the college authorities, and reported to the Syndicate.

(2) In the case of Government and aided institutions, the Education Department can make and enforce proper transfer rules. If the University is satisfied with the Government rules, it should require unaided affiliated institutions to observe them as a condition of their affiliation. In so far as the Government rules are insufficient, the University should itself make transfer rules, as has been done at Madras and Allahabad.

(3) Fees should be paid terminally in advance, and the question of the amount, if any, to be refunded on the transfer of a student should be decided by the college.

College and School.

When a college is connected with a high school, the college classes should be conducted in a separate building and under separate management.

Second-Grade Colleges.

The Universities should decline to affiliate any new second-grade college. In the case of those now affiliated, the aim of Government and of the University should be to effect gradual separation, so that University students should receive their education in colleges properly so called. Those second-grade colleges which cannot hope to rise to the first grade ought to revert to the position of high schools. It may be left to each University to determine the period within which this change can be effected. When a second-grade college is badly

equipped, or sends up a small number of students for the Intermediate Examination, it should be disaffiliated at comparatively short notice, and the stronger second-grade colleges should be required to choose between the status of a college and that of a school within some reasonable limit of time, and with due regard to existing interests. In this, as in all cases, the question of creating a new first-grade college must be decided in the first instance by the Syndicate, in accordance with the rules of affiliation.

Recognition of Schools.

The University should recognize only the following classes of schools:—(*a*) schools within its local limits recognized by the local Education Department in accordance with the departmental rules for the time being in force, and (*b*) schools in Native States which are certified by the Government of the State in which they are situated to be organized and conducted in general accordance with the educational rules in force in the province of British India with which it is politically or academically connected.

College Life.

(1) Every encouragement should be given to societies and pursuits which bring students together out of class, and in this connexion much importance attaches to games.

(2) The Universities should provide places and occasions for bringing men of different colleges together. They might, for instance, establish reference libraries with reading and conference rooms for Professors, and rooms in which students could read and hold debates.

General Remarks on Teaching.

The use of "keys" should be in every way discouraged by the college authorities.

English.

(1) Text-books in English should not be prescribed for the Matriculation classes; the course should be described in general terms, a list of books being given by way of illustration. The list should consist chiefly of descriptive and historical books and should be so long as to exclude the possibility of all of them being committed to memory.

(2) In the higher courses the books should be chosen as examples of language and style and should be studied more or less minutely. Books which deal with the history and criticism of literary works which the student has no opportunity of reading should not be included.

(3) The English course for the M.A. degree should be combined with a course in a vernacular or in an eastern or western classical language.

(4) Anglo-Saxon should not be included in the course of an Indian University.

(5) Students, after they begin to specialize in Science, should not be subjected to a separate test in English.

Latin.

(1) Latin should not be made a compulsory preliminary qualification for medical students.

(2) Inter-collegiate arrangements should be made for the study of Latin where there are several small classes in the same town.

Classical Languages of the East.

(1) The study of a classical language should be compulsory in both the Intermediate and Final courses for the B.A. degree. A vernacular language of India should not be accepted as an alternative subject.

(2) Teachers of Sanskrit should have a critical knowledge of the subject and should be acquainted with western methods of study. Their training should be such as to entitle them to the same status and pay as the Professors of other subjects.

(3) In reading and writing Sanskrit the Devanagri characters should be used.

(4) To improve the study of Arabic, the following reforms should, where needed, be introduced :

(*a*) Well-chosen text-books in grammar should form a compulsory part of the course.

(*b*) Unseen passages and composition should carry high value in all the higher examinations.

(*c*) A fair knowledge of English in addition to a scholarly acquaintance with the Arabic language and literature should be a necessary qualification for employment as a Professor of Arabic.

(*d*) The emoluments of an Arabic Professor, provided he possesses the qualifications stated above, should not be inferior to those of other Indian Professors.

(5) To improve the study of Persian—

(*a*) Graduates with some guarantee of their Persian scholarship other than the Arts degree, with Persian as the second language, should be employed to teach this subject.

(*b*) Persian should not be accepted by itself as a subject for the M.A. course; it should be combined with some other classical or vernacular language of India.

(6) Encouragement should be given to the examinations held for the grant of titles in oriental learning, but the Universities should not assume charge of these examinations unless they can be conducted efficiently, unless a standard can be maintained of which the Universities will approve, and unless the transfer will be in the interest of ancient learning.

Vernacular Languages of India.

(1) The inclusion of the vernacular languages in the M.A. course is recommended, and the course should be of such a character as to ensure a thorough and scholarly knowledge of the subject.

The establishment of professorships in the vernacular languages is an object to which University funds may be properly devoted.

(2) Vernacular composition should be made compulsory in every stage of the B.A. course, but the subject need not be taught.

(3) The principle should be recognized that verbal accuracy of rendering is not sufficient to constitute a satisfactory translation, but that it must be properly and grammatically composed.

(4) Further encouragement should be given to the study of vernacular languages by the offer of prizes for literary and scientific works.

(5) The oriental side of the Punjab University should be maintained and the courses for the degrees of Bachelor and Master of Oriental Learning should be retained with the following important modifications. English, as a second language, should be made compulsory throughout the courses. Wherever possible, graduates with high honours on the English side should be appointed lecturers, and they should be required to prepare their courses for publication. Funds should be set apart annually for the publication of these courses of lectures and for the compilation and publication of text-books on subjects not covered by them. The Oriental College ought to be subject to the same rules of affiliation as other colleges connected with the Punjab University.

The example set by the Punjab University in establishing an oriental side should not be followed by any other University for the present.

(6) The work of the school attached to the Oriental College is outside the the scope of the University.

French.

French should not, except for female students, be accepted as an alternative for a classical language.

Philosophy.

(1) The subject of Philosophy cannot be included in the Matriculation classes, but should form a compulsory portion of the Arts courses.

(2) Courses in Philosophy should be defined by syllabuses. Suitable text-books should also be recommended for study.

(3) The following is suggested as an outline for the study of Philosophy:

(*a*) Intermediate course—Deductive Logic and elementary Psychology.

(*b*) B.A. course—Deductive and Inductive Logic, Psychology and Ethics, Natural Theology and the History of Philosophy.

(*c*) The M.A. course should include in addition to the books of Greek and German philosophers, suitable portions of some of the great systems of Indian Philosophy, to be read in English or in Sanskrit at the option of the student.

Mathematics.

The subject of Mathematics should be compulsory in the Matriculation and Intermediate courses, and optional in the higher courses of the Arts and Science Faculties.

History and Political Economy.

(1) History should not be included in the Intermediate course, but should form an optional subject for the B.A. and M.A. degrees. Political Economy should be combined with it.

(2) For the study of History, the subject should be defined by periods, books being recommended, not prescribed; some study of original documents should be introduced and some use of contemporary historians should be required. A reference library should be made available wherever History is taught. The course should be carefully adapted to the needs of Indian students.

(3) In the study of Political Economy attention should be directed to the economic conditions with which the students are familiar, and they should be encouraged to investigate in a scientific manner the economic problems of India.

Science Courses.

(1) Students should not be required to pass in Science before entering on a University course.

(2) Physics and Chemistry should be optional in the Intermediate course.

(3) The instruction in these subjects should include a regular course of practical experimental work. The University should not conduct a practical test as part of the Intermediate Examination, but each candidate should present

a certificate from the authorities of his college, to the effect that he has duly gone through the practical course prescribed in the laboratories of the college, and that he has passed the college test examination in the practical work of the course. The written examination should be so devised as to elicit the fact of his having undergone this training, and the University should assure itself that in the college in which he has studied, he has had adequate facilities for receiving practical instruction.

(4) The course of the degree of Bachelor of Science should consist of one of the two following groups of subjects :—

Mathematics, Physics and Chemistry, *or*,

Physics, Chemistry and Natural Science.

By Natural Science is intended one of the following Sciences :—(*a*) Botany, (*b*) Physiology, (*c*) Zoology, (*d*) Geology including Mineralogy and Palæontology.

One of the three subjects should be regarded as the candidate's special subject, and he should be subjected to a more severe test in it. For candidates studying the second group, the special subject must be the selected Natural Science.

(5) Candidates following a literary and a scientific course, respectively, should receive the separate designations of Bachelor of Arts and Bachelor of Science.

(6) In all examinations for the degree of B. Sc., the practical side must be made more prominent than has heretofore been the case. Practical examinations should be passed independently of the written examination, and should have a separate minimum of marks. Ample time should be allowed for a thorough and fair practical examination.

(7) No special facilities in the way of a reduced period of study or a diminution in the number of subjects should be conceded to enable a Bachelor of Arts to proceed to the B. Sc. degree or *vice versâ*.

(8) A graduate in Science should be allowed to proceed to the higher degree of Master in Science by specializing in one of the subjects included in the B. Sc. course, and presenting himself for examination in that subject after some specified period after the time of his graduation as B.Sc.

(9) The Doctor's degree should not be obtained solely by examination, but should be awarded mainly on the ground of original investigation for a period of, say, five years, in the particular Science in which the candidate has taken his Master's degree.

General Outline of Courses.

The following outline is suggested for the various Arts and Science courses :—

Intermediate Course :—

1. English.
2. Classical Language.
3. Mathematics.
4. One of the following :—
   (1) Physics and Chemistry, *or*,
   (2) Deductive Logic and Elementary Psychology.

B.A. Course :—

1. English.
2. Classical Language.
3. Philosophy.
4. One of the following :—
   (1) Mathematics.
   (2) History and Political Economy.

B. Sc. Course :—

One of the following groups of subjects :-

(1) Mathematics, Physics and Chemistry.

(2) Physics, Chemistry and Natural Science.

M.A. Course :—

Any of the following subjects :—

(1) Languages—the course to include either English combined with a classical or Indian vernacular language, or a classical language of India combined with an Indian vernacular.

(2) Philosophy.

(3) History, Political Economy and Political Philosophy.

(4) Mathematics.

M. Sc. Course :—

Any one of the subjects included in the B. Sc. Course.

The degrees of *Doctor of Literature* and *Doctor of Science* to be given to Masters of Arts and Science respectively after some years spent in original investigation.

Law.

(1) The study of Law should be postponed until the student has finished his course for the ordinary degree in Arts or Science. If he is intended for one of the lower grades of the profession, he should begin after the Intermediate course; if he is going to the Bar or means to take a degree in Law, he should begin after graduation. Jurisprudence should not be admitted as an optional subject in any course leading to the B.A. degree.

(2) The method of instruction should be improved by introducing the system of teaching from cases.

(3) Roman Law should not be made a necessary subject for a Law degree.

(4) The question of creating or maintaining and improving an adequate central School of Law should be taken up without delay at each of the Universities. The Professors of such a School, including any University Professors who may be connected with it, may be judges or practising lawyers who meet their classes in the morning or evening out of court hours. There should be a staff of tutors competent to help students in their reading, and a good Law library. In the governing body the Bench and Bar of the local High Court should be strongly represented.

Medicine.

(1) The system under which the teaching of Medicine is centralized in the Government colleges should be maintained.

(2) The equipment of the medical colleges should be improved, especially as regards the provision of arrangements for practical work, and of class-room and hostel accommodation.

(3) A medical college should be established in the United Provinces.

(4) No person should be appointed to lecture on a particular branch of medical study unless he has devoted special attention to it and displayed special knowledge about it. A medical officer selected to lecture in a particular subject, either permanently or temporarily, should not be regarded as having any claim, owing to his position in the service, to be transferred to another professorship which may fall vacant.

(5) Medical students in the University of Bombay should be required to pass the Intermediate instead of the Matriculation examination as a preliminary qualification for admission to the medical course. At Lahore no further qualification in Arts or Science need be required for the M.B. degree.

(6) Medical students should not be required to qualify in Latin.

(7) The Universities should continue to give licenses in Medicine and Surgery to those who qualify for them, as well as the degrees of Bachelor and Doctor of Medicine. The license should be a diploma and not a degree, and may be given to those who attain a somewhat lower standard in the examination for the M. B. degree in both extent and depth of knowledge, than those who will be entitled to obtain that degree.

(8) Each University should revise its scheme of studies and examinations so as to provide for a preliminary scientific course extending to Physics, Chemistry and General Biology; to be followed firstly, by an Intermediate course of Anatomy, Physiology and connected subjects, and secondly, by a final course of Medicine, Surgery and other professional subjects.

(9) It appears undesirable to separate Medicine and Surgery at the stage of the Bachelor's degree, but desirable that the Doctor's degree should be given for some special branch of study, a candidate being allowed to offer his own subject, and the University testing him as it thinks fit by examination or otherwise. A candidate for the Doctor's degree should not be required to have obtained a degree in Arts or Science.

(10) Each University should establish a diploma of Sanitary Science as soon as adequate arrangements have been made for the proper teaching of Bacteriology, Sanitation and Sanitary Engineering.

Engineering.

(1) The Intermediate Examination should, in all Universities, be the preliminary test for students wishing to follow a course of Engineering.

(2) The University should not itself undertake instruction in Engineering.

(3) Such instruction as students may need in Mathematics, Physics and Chemistry, subsequently to having passed the Intermediate Examination, should be provided for in the colleges of Engineering.

(4) Great care should be taken to provide similar courses and to equalise the standards in the different Universities.

(5) Further provision is needed for instruction in Mining and Electrical Engineering.

(6) The training should be throughout of a thoroughly practical nature.

Agriculture.

The Universities should, as far as possible, encourage agricultural studies, and should consider the desirability of granting diplomas for proficiency in the theoretical and scientific as opposed to the practical side of an agricultural course.

Commerce.

Studies useful for commercial pursuits should be encouraged as far as possible both by the Universities and by the Government. The Universities may perhaps help in the examinations of the London Chamber of Commerce or in any examinations which may be instituted by the Local Governments.

Teaching.

The Universities should promote the training of all classes of teachers in the theory and practice of Teaching in every way in their power ; and, where this has not already been done, arrangements should be made to hold examinations for the grant of licenses in Teaching. The University should provide suitable courses of lectures for teachers.

General Scheme of Examinations.

(1) The Previous Examination of the University of Bombay should be abolished.

(2) The standard of the Matriculation Examination should be raised.

(3) There should be uniformity in the nomenclature of the examinations and degrees in Arts and Science at the different Universities. The three examinations leading up to the Arts and Science degrees should be called the Matriculation Examination, the Intermediate Examination and the Examination for the degree of B. A. or B. Sc. respectively.

Matriculation.

(1) Colleges should not be permitted to matriculate students at their own discretion.

(2) The Matriculation Examination should be improved by drawing away from the examination candidates who ought not to appear at it, and by raising the standard.

The Age Limit for Matriculation.

(1) A candidate should be required to have completed his fifteenth year at the date on which he appears at the examination.

(2) No candidate should be allowed to appear for Matriculation more than three times, whether at one or several Universities. Power should be given to the Syndicate to make exceptions to this rule for special reasons to be recorded in each case.

Private Students.

(1) Every private candidate for Matriculation should be required to obtain a certificate, which should only be given under special circumstances, from the educational Inspector of the circle within which he lives that, as the result of an examination held by the Inspector or of the ordinary test examination of a high school, it seems reasonably probable that he will pass the Matriculation Examination.

(2) Pupils who ought to have come up from a recognized school, but have failed to comply with the rules, should not be allowed to appear as private students.

(3) No private student should be admitted to the Intermediate Examination, or to the examination for the degree of B. A. or B. Sc., unless by a special order of the Senate, to be justified by reasons to be recorded in each case at the time of making the order.

Matriculation and Government Service.

(1) The conduct of a School Final or other school examination should be regarded as outside the functions of a University.

(2) It will be of great benefit to the Universities if the Government will direct that the Matriculation Examination shall not be accepted as a preliminary or full test for any post in Government service. In cases where the Matriculation Examination qualifies for admission to a professional Examination the School Final Examination should be substituted for it.

(3) It will be advantageous if the School Final Examination can, in the case of those boys who propose to follow a University career, be made a

sufficient test of fitness to enter the University. Failing this, the best arrangement would appear to be that the Matriculation candidate should pass in certain subjects in the School Final Examination, and be examined by the University with regard to any further requirements that may be deemed necessary.

Subjects of Examination.

(1) Matriculation candidates should be examined in English, a classical language, Mathematics, History and Geography.

(2) The examination in English should include unseen passages, grammar and composition, and translation from the vernacular into English, and, if the reduction in numbers will admit of it, there should also be an oral examination.

(3) No candidate should pass who does not obtain 40 per cent. in English and 35 per cent. in each of the other subjects. A minimum of 30 per cent. should be required in each of the English papers.

Examinations for Honours.

There should be no separate Honours examination for the Bachelor's degree. The M. A. should be regarded as the Honours examination. This suggestion will involve the raising of the standard of the Pass examination in Calcutta.

Mutual Recognition of Examinations by Indian Universities.

The standards of corresponding examinations in different Universities should be equalized as far as possible; and, given an approximately equal standard and good cause shown by the applicant, it is desirable that one University should recognize the examinations of another antecedent to the examination for the degree of M.A. and the corresponding degrees in other Faculties.

Dates of Examinations.

Examinations should be fixed at such dates that they may follow closely on the working term, that a vacation may be given immediately after them, and that the teaching may be, as far as possible, distributed over the rest of the academical year.

Places of Examination.

(1) The Syndicate should pay attention to the provision of suitable accommodation for the holding of examinations and should not leave this matter to the local authorities.

(2) It should be left to each University to decide whether it will have few or many examination centres.

Appointment of Examiners.

(1) Examiners should, as heretofore, be appointed by the Syndicate.

(2) Applications ought not to be invited, and while the Syndicate should receive and consider any applications that are made to it, it should also, by means of inquiries made either by itself directly or from the Principals of colleges, endeavour to secure the services of the best examiners available.

(3) Teachers should be permitted to examine in the subjects in which they teach; but whenever a teacher is appointed to be an examiner in a subject which he has taught to any students appearing at the examination, he should be associated with at least one other examiner, who has not been engaged in teaching the subject, and the examiners should then act as a Board and set the papers jointly.

(4) The rule debarring a member of the Syndicate from being an examiner should be rescinded wherever it is in force.

(5) When more than one examiner is appointed, the examiners should be formed into a Board; one should be appointed Chairman, and the Board should meet to set the papers and settle the results of the examination.

(6) Papers should, whenever possible, be set and looked over by the same persons. When there are a large number of examiners, the papers should be set by a sub-committee of the Board.

Methods of Examination.

(1) The character of the papers set should, in many cases, be modified in order to discourage cramming and ensure to students the full benefit of careful study. Easy questions are best suited for this purpose. In Mathematical papers, problems suitable to the standard of the examination should be appended to questions on book-work. A high percentage of marks should not be assigned to mere book-work.

(2) The practice of noting the number of marks assigned to each question in an examination paper is open to objection. It is preferable that a candidate should be given a choice of questions in each paper and should be directed to answer only a certain proportion of those set, but in all advanced examinations, such matters of detail should be left to the discretion of the examiner.

(3) When papers have been marked by different examiners, they should be returned to the head examiner, who should examine a certain number taken at random, with a view to assuring himself that the examiners are observing the same standard.

(4) The Board of Examiners should be convened to settle the results.

(5) Where a candidate has failed in one subject only and by not more than five per cent. of the full marks allowed for it and has shown merit (which should be interpreted to mean has gained 50 per cent. of the marks) in the aggregate of the other subjects, he should be considered to have passed. Grace marks and similar devices should be expressly forbidden.

(6) In the Bombay Matriculation Examination the English papers are examined first, and the numbers of the candidates who pass in that subject are sent to the Registrar. In other subjects the examiners are directed to look over and mark only the papers of those candidates who have passed in English. This practice is recommended for general adoption.

(7) Candidates should be permitted to know the marks they have obtained; they should be charged a fee for the information. In the authoritative publication of the results of examinations, candidates should be entered in alphabetical order in the class to which they belong.

"Examination by Compartments."

Care should be taken, in framing the programme of an examination, to see that subjects are not so numerous as to lay an undue burden on the minds of the candidates; but if this condition is complied with, the examination should be treated as a whole, and not broken up into sections.

Candidates Failing to Pass.

The case of each candidate should be dealt with separately, and the question whether he should return to college and go through the course of study or part of it over again should be left to the college. The certificate on which he reappears should be a new one and should show whether he has gone through any additional course of study since his failure. If a student who has passed or failed at an examination desires to go to another college, the transfer rules should require him to obtain a leaving certificate.

Percentages.

Percentage statements should show not merely the number of candidates sent up but also the number of students in the second or fourth year's class as the case may be.

University Funds.

(1) The principle should be recognized that if the Universities are to incur additional expenditure in order to improve the education of their students, it is not unreasonable that they should charge higher fees, and each University should consider how far it can, by means of the resources already at its disposal and by raising its fees, find funds for new expenditure.

(2) The scale on which the Government supports and aids the colleges may be reconsidered in view of the increased expenditure to which the acceptance of the foregoing recommendations must lead. Unless by Government aid or otherwise the financial position of the Universities can be materially strengthened, the prospect of any thorough change for the better must be indefinitely postponed.

Legislation.

An outline of the Legislation necessary to give effect to these recommendations is given in paragraph 195.

T. RALEIGH,
President.

GOOROO DASS BANERJEE.*

SYED HOSSAIN BILGRAMI.

J. P. HEWETT.

ALEXANDER PEDLER.

D. MACKICHAN.

A. G. BOURNE.

R. NATHAN,
Secretary

SIMLA;

June 9th, 1902.

* Signed subject to Note of Dissent.

G. D. BANERJEE.

NOTE OF DISSENT.

1. I regret very much that I am unable to agree with my learned colleagues on some of the points dealt with in our Report. These points of difference being of importance more or less, I deem it my duty to state my views upon them, in the order in which they occur in the Report, and to indicate briefly my reasons in support of those views.

I.—CONSTITUTION OF THE SENATE AND THE SYNDICATE.

2. The first point upon which I feel bound to dissent from the opinion of the majority of the Commission is that relating to the constitution of the Senate and of the Syndicate, which is dealt with in pages 8 to 10 and 12 and 13 of the Report.

3. The witnesses examined before us are almost unanimous, and we are quite agreed, in the opinion that the Senates of the Indian Universities have become unwieldy bodies, by reason of their consisting of unduly large numbers of Fellows, and of the Fellows not being all qualified to take part in the work of a University; and the question is, how to reduce the Senates to their proper numbers with only duly qualified members. Some of the witnesses are in favour of drastic measures, and recommend that the existing Senates should be dissolved and new Senates constituted by the Legislature; while others would leave the reduction to be effected by the operation of natural causes such as death and retirement of Fellows, and of a rule making Fellowships terminable for non-attendance, and would only suggest that new appointments should be sparingly and judiciously made. We are not in favour of either of these two methods.

4. My learned colleagues recommend that the existing Fellows not appointed to the Senate be allowed to retain their Fellowship as an honorary distinction, but without having any voice in the management of the Universities; and that the management of each University be placed in the hands of a body of men to be called the Senate, consisting of 100 members for the older, and 60 for the younger Universities, these members being for the most part appointed by Government, and only a small number being elected by the appointed members or by graduates, and one-fifth of the members retiring every year, but being eligible for re-appointment or re-election.

This scheme of allowing existing Fellows not appointed to the Senate to retain their Fellowship follows to a certain extent that adopted by the London University in the reconstitution of its new Senate. But the objection to it is, that it leaves these existing Fellows the empty honour of a name without giving them any direct or indirect voice in the management of the University. It is also open to the objection that the temporary character of the tenure of office of the members of the Senate may tend to impair their independence and incline them sometimes to decide questions, not according to their merits, but according to the wishes of those with whom the power of re-appointment virtually rests; and it will be no answer to this objection to say that an independent member may re-enter the Senate by election, the chance of his doing so being very small owing to the smallness of the number of elected members.

I agree with my learned colleagues in the view that it would not be right to dissolve the existing Senates altogether, as the majority of the Fellows had the honour of Fellowship conferred on them unsolicited, and it would be hard, if not also unjust, to deprive them of that honour without any fault on their part.

5. The mode I would suggest, of dealing with the existing Fellows and of constituting a reformed Senate, may be shortly stated thus:—

(*a*) The present Fellows of the different Universities should be retained in office; their maximum number for the future fixed at 250 for the three older, and at 150 for the two younger Universities; and future appointments made annually keeping in view this maximum, some only of the vacancies occurring in a year being filled up where (as in the case of Bombay) the existing number exceeds the maximum.

(*b*) Of the number of Fellows appointed annually, one-third or the nearest whole number should be elected by graduates of a certain rank or standing, subject to the approval of the Chancellor, and the remainder appointed by Government; and all Fellows should hold office for life.

(*c*) The Fellows should have the privilege of attending the Convocation for conferring degrees, of returning a representative of the University to the Local Legislature or Municipality, of forming the body from among whom the governing body of the University to be called the Senate should be selected, and of electing one-half of the Senate; but they should not have any right to vote upon any other question connected with the University.

(*d*) The government of the University should be vested in a smaller body called the Senate, consisting of 100 members (exclusive of the Chancellor, the Vice-Chancellor and the local Director of Public Instruction and a few other high officials who should be *ex-officio* members) for the older, and 60 for the younger Universities, one-half of the number being elected by the Fellows from among themselves, and the other half appointed by the Chancellor or Government from among the Fellows, the elections and appointments being so made that one-half of the number in each case should consist of Professors of Government, aided and unaided affiliated Colleges, and the other half as nearly as possible in equal proportion of officials and non-officials, other than persons engaged in teaching, and so that Indians and Europeans may be fairly, and if possible equally, represented; the proper representation of all these interests being secured by the appointments by the Chancellor or Government being made after the result of the elections is known. The members of the Senate should hold office for five years, should vacate office for non-attendance for one year, and should be eligible for re-appointment and re-election, the first elections and appointments being so made, with a view to preserve continuity, that one-fifth of the elected and of the appointed members should cease to hold office at the end of each of the first five years.

6. The considerations in favour of this scheme are—(1) that it gives the existing Fellows some substantial privileges, namely, those of forming the body out of which the governing body of the University, that is, the Senate, is to be chosen, and of electing one-half of the Senate; (2) that the temporary character of the tenure of office of a member of the Senate will not impair his independence by inclining him to be subservient either to the appointing authority or to the electoral body, the chances of an independent member re-entering the Senate by election and by appointment being equal; (3) that it introduces the elective element with a limited and improving electorate in a much larger proportion than the scheme recommended in the Report, and is likely to prove more popular and to ensure greater public confidence; and (4) that it at the same time secures an adequate and a definite representation of Government and private educational interests, while the non-educational official and non-official members will definitely add to the further representation of Government and the general public, and help the Senate by their co-operation, which will be useful in all cases, and necessary in those in which broad questions of educational policy or complicated questions of conflicting educational interests arise.

7. The objections that may be urged against this scheme are—(1) that it makes the existing Senates, which have been considered unsatisfactory, the bodies out of which the reformed Senates are to be constructed, and also the bodies by which half the members of the new Senates are to be elected, and so it cannot give any fair guarantee of the fitness of the new Senates; and (2) that it perpetuates the existence of two bodies, an outer, the body of Fellows, and an inner, the Senate, whereas after the present body of Fellows disappears, the outer body will be a needless complication.

With reference to the first branch of the first-mentioned objection, I would observe, that it is valid only if the existing Senates are so badly constituted that there are not amongst them one hundred members for each University, properly

answering the descriptions mentioned in my scheme. This, however, is not, I think, the case. And even if it was, the existing Senates could be easily replenished by the appointment of suitable members under the present law, before giving effect to the new scheme. Then, as to the second branch of the objection, I would remark, that elections by the existing Senates, replenished if necessary, cannot result in anything unsatisfactory, seeing that the elections will be controlled by the rules about the representation of the several interests, and seeing further that any faults in the elections can be rectified by the Chancellor or Government by the appointments that will follow ; whereas in the scheme proposed in the Report, if there is anything wrong in the appointments made, the small measure of election allowed will hardly be sufficient to set it right.

In answer to the second objection I would observe that, though the existence of an outer and an inner body of members for the Universities no doubt involves a complication, it would not prove an undesirable or unnecessary one, seeing that the outer circle may serve as a sort of training ground for admission to the inner, and may also afford better room than the new small Senates, for doing honour to deserving graduates of Indian Universities whose number is growing, and to munificent benefactors of the Universities whose number, it may be hoped, will also go on increasing.

8. Before concluding this point I should add, that in whatever way the new Senates may be constituted, whether by appointment alone or partly by election as well, they should fairly and adequately represent Government and private educational interests, and non-educational official and non-official interests, and these interests should be represented by Europeans and Indians in fair, and if possible equal, proportion.

In saying this, I know I am saying what is not quite in accord with ordinarily accepted views on the subject. It is maintained by many that educational interests are all that need be represented on the Senate of a University ; and it is said by some that as a University is a Western institution, the European element should predominate in the Senate, with only a small admixture of the Indian element to enable the European members to know what the views of the Indians are upon any question affecting them. Speaking with all respect for these opinions, I must say that my own view, though opposed to them, is not altogether unreasonable, as a little consideration will show.

Universities exist for promoting the advancement of learning, and in the constitution of their Senates, the educational interests are no doubt entitled to representation before all others ; but there are other interests involved which also require representation, and which must not be ignored : and they are those of the Government and the general public.

For, the Universities may have to consider questions of educational policy, such as, whether general liberal education alone should engage their attention, or whether technical education should also be encouraged, to develop the resources of the country, questions upon the determination of which the Government as responsible for the peace and prosperity of the country and quite irrespective of its position as the proprietor of colleges, must, along with the general public, be at least as deeply interested as professors of colleges. So again, they may have to consider a question like that relating to the age limit for the Entrance Examination, in the determination of which, the public, that is the guardians of students, are perhaps as much concerned as mere educationists, as upon the decision of the question depends not only the chance of an Indian graduate's entering public service, but also the time of his finishing his education and entering the world. Nor must we lose sight of other classes of questions which often arise, such as those relating to the affiliation of new colleges, or to the transfer of students from one college to another, in relation to which, representatives of existing colleges have an interest disqualifying them to act as sole arbiters in the matter, and the educated portion of the general public have an interest entitling them to a voice in the decision.

Again, though it is quite true that the University is a Western institution, and active friendly co-operation of European scholars and scientists is at the present day absolutely necessary, and must at all times be most cordially welcome, in the management of Indian Universities, it should also be borne in mind that it is

Indian youths who chiefly resort to them, and that their requirements and difficulties, their habits and modes of life, and even their sentiments and susceptibilities should receive due consideration, and for that purpose educated Indians should be adequately represented on the Senate. In saying this I do not lose sight of a possible danger sometimes apprehended, of Indian members seeking to lower the standard of education in order to make the attainment of academic distinctions easy for their countrymen ; but I venture to think that self-interest, if not also sound judgment, aided by past experience, will serve as a sufficient safe-guard, and Indians will no longer fail to see that to make University degrees in this country of any real value, we must raise their standards as high as they are in the great English Universities.

9. In regard to the constitution of the Syndicate, I am unable to agree to the proposal in clause (*c*) at page 13 of the Report for securing a majority of teachers.

My reasons for not having a statutory majority of teachers as such in the Syndicate have already been indicated in my remarks relating to the Senate in the preceding paragraph of this Note. Considering the duties which the Syndicate has to perform, and considering that it will not be likely to have all colleges or even all classes of colleges represented on the Syndicate, a statutory majority of teachers as such will be undesirable in the interests as well of the general public as of the colleges themselves.

I may add that I would not object to a majority of teachers on the Syndicate if such majority resulted from an unrestricted election by the Senate, which would imply that the teachers formed the majority because they were considered fit to be on the Syndicate and not simply because they were teachers.

II.—Disaffiliation of Colleges by the Syndicate.

10. The next point upon which I feel constrained to disagree with my learned colleagues is the proposal made in page 13 of the Report, that no decision of the Syndicate for the disaffiliation of a college should be open to revision by the Senate.

11. It may be said that as the Syndicate is the authority which recommends affiliation, there can be no objection to the same authority recommending disaffiliation ; it may also be apprehended that if the matter be left in the hands of the Senate, it may give rise to undesirable canvassing ; and it may be urged in favour of the recommendation in the Report, that even if the Syndicate arrives at a wrong decision in any case, it may be set right by the Government in whose hands the power of ordering disaffiliation finally rests.

But in the first place, the state of things with which we are concerned at the time of an application for affiliation of a new college must be very different from that at the time when the Syndicate recommends the disaffiliation of an old college, it may be, of long standing. The effect of an adverse order in the former case can affect no large or vested interests, whereas an adverse order in the latter must affect the vested interests, not only of the college concerned, but also of its students. Then, again, the question whether affiliation should be withdrawn, may involve considerations of much greater nicety and difficulty than the question whether it should be granted. It does not, therefore, follow that because the Syndicate is the final authority to determine the latter question, it should be also entrusted with the duty of determining the former finally so far as the University is concerned.

As for the apprehension about canvassing, I may observe that it is not likely to work much harm in our reformed Senates.

And as for the safe-guard against any error of the Syndicate which the action of the Government might afford, I would beg leave to point out that, as the Government must naturally derive its information from the Syndicate or the Director of Public Instruction who under the new scheme will always be a member of the Syndicate, and as they both must be committed to the view they have already taken in recommending disaffiliation, the chances of Government having before it any materials which would warrant its reversing the decision of the Syndicate, must be very small.

It may be said that the Government may in some cases affirm the decision of the Syndicate and reverse that of the Senate, thus placing the latter in an awkward position, and that it is not desirable, therefore, to give the Senate any power of revision. The chance of being overruled by Government may be a very good reason for making the Senate cautious in its interference, a thing by no means undesirable; but it can form no reason for not giving the Senate any power of revision. Such chance exists in every case in which a revisional authority is not the final authority.

12. It is desirable, therefore, that before Government takes action upon any recommendation by the Syndicate for the disaffiliation of a college, that college should have an opportunity of bringing the matter before the Senate, so that the Government may, when passing final order in the case, have before it the opinion of the Senate as well as that of the Syndicate, together with the materials upon which those opinions are based.

III.—Fees in Arts Colleges.

13. Another point upon which I am unable to agree in the Report is that relating to the fixing of a minimum rate of fees in Arts colleges, dealt with at pages 16 to 19.

In my opinion the minimum rate of college fees should be left to adjust itself according to the circumstances of each Province, and the Universities should not interfere in determining it, unless there be very strong reasons for doing so. My learned colleagues think that such reasons exist, and that Universities should interfere.

14. The reasons given, as I understand them, are—

(1) that "fees must not be fixed so low as to tempt a poor student of but ordinary ability to follow a University course which it is not to his real interest to undertake";

(2) that "the work of collegiate education has been much impeded by the attendance at colleges of students whose abilities do not qualify them for University education," and this is a result of "low fees and the grant of free studentships solely on account of poverty"; and

(3) that "if a minimum rate of fees is not enforced, the standard of education and discipline is lowered" by undue competition among unaided institutions leading to the lowering of fees and thus reducing their efficiency for want of means.

Speaking with all respect, I must say I am wholly unable to accept the first reason as sound. Whether it is to the *real interest of a poor student of but* ordinary ability to follow a University course, it is for him and for those immediately interested in him to decide. Others may give him proper advice; but no University would be justified in imposing any restriction such as a prohibitive fee for the sole purpose of preventing him from entering it, if he satisfies all other ordinary tests of fitness for doing so. Youths of ordinary ability are often found to develop considerably their mental powers later and by slow degrees. Then again, while fully admitting that the highest aim of University education should be to produce men who can add to the stock of human knowledge and culture, we must also bear in mind that it would be no unworthy aim of such education, especially in a country like India where high education has made such small progress, to produce men who by adding to their own knowledge and culture raise the position of the communities to which they belong. The number of men who will prove fit for the former purpose must be very small; and equally small must be the number of those who can before trial be pronounced unfit for the latter.

The principle of excluding students from University education by a fee limit is open to the further objection, that it will, on the one hand, exclude not only the undeserving but also the deserving poor students; while, on the other hand, it will fail to exclude the undeserving rich students. My learned colleagues think that the exclusion of deserving poor students may be prevented by the award of scholarships. I do not see how that will be practicable. The best

among the deserving may be helped in that way, but not all. The number of students who pass the Entrance Examination of the Calcutta University in the first division may be taken on an average, roughly speaking, to be about 1,000. They may all be fairly regarded as deserving students; but we can hardly expect to have so many scholarships. Nor can it be said that they all deserve scholarships; and it will be invidious and impracticable to separate the poor from the rich among these 1,000 students for the award of scholarships.

It will, therefore, be unjust and unwise to fix a minimum fee rate for the purpose of excluding poor students of fair average merit from University education.

The second reason for a fee limit appears, in my humble judgment, to be equally unsound. If the work of collegiate education is impeded by the presence of ill-qualified students, the remedy for the evil lies, not in raising the college fee, which will fail to exclude the richer classes of such students, but in raising the qualification for entering a college. That is not only the direct but the only feasible mode of getting rid of unfit students.

The third reason no doubt requires careful consideration. If undue competition, by lowering the college fees and thus diminishing the resources of unendowed private colleges, has impaired their efficiency, the question arises whether Universities should interfere and fix a minimum fee rate, or whether they should simply determine the conditions of efficiency, such as a full and competent teaching staff, a good library and a properly equipped laboratory, and leave the colleges to fix such fees as they may consider necessary to enable them to satisfy those conditions.

But, in the first place, the evidence before us is far from being sufficient to warrant the conclusion that college fees have gone down to any very great extent by reason of undue competition. Dr. Miller of Madras no doubt strongly supports that conclusion, and another witness (Mr. Macphail) agrees with him; but Mr. Stuart, the Director of Public Instruction in the Presidency, says—"There is some underselling but not enough to be a serious evil. It has not increased since the compulsory standard was abolished," while Father Sewell goes further and says—"The statement that colleges undersell one another has not been proved." And the evidence given at the other University centres is not of a more decisive character one way or the other. The truth seems to be that the college fees were originally fixed somewhat lower than they ought to have been, and this did not lead to any difficulty, because the Universities were then less exacting in their conditions of affiliation relating to equipment for teaching science. In Calcutta, as we gather from the evidence of Mr. N. N. Ghose, Principal of the Metropolitan Institution, the fees have been slightly raised.

15. Of the two alternative remedies suggested above in the statement of the question, I should prefer the latter; that is, I should limit the interference of the Universities to determining the conditions of efficiency, and leave it to the colleges to fix their own fees consistently with their being able to satisfy those conditions. My main reason for taking this view is, the extreme difficulty of fixing a proper minimum fee rate, of enforcing it in practice, and of completely enumerating and accurately stating the exceptions and qualifications to which it must be made subject in order to prevent hardship and injustice.

Perhaps the only case in which the interference of the University in fixing a minimum fee rate would be desirable, is where the majority of the affiliated colleges ask it to do so. But no such case has yet arisen; and when it arises, it will be open to the University which is asked to interfere, to take such action as it may think fit.

IV.—Transfer of Students.

16. The next point upon which I am unable to concur with my learned colleagues is their recommendation at page 19 of the Report that—

> "No transfer should be permitted in the middle of a course of study unless for special reasons to be recorded in writing by the college authorities and reported to the Syndicate."

17. I am fully alive to the importance of maintaining discipline, and would disallow transfer in the middle of a course if such transfer is sought for to

avoid the enforcement of discipline. But the recommendation just referred to, goes very much further.

The reasons that may be urged against freedom of transfer are—

(1) that free transfer is detrimental to discipline ;

(2) that free transfer is detrimental to the interests of the student asking for it ;

(3) that free transfer is detrimental to the interests of the college to which the student belongs.

The first is the only good reason against allowing free transfer ; and where a transfer is applied for to evade discipline, it should be disallowed. To extend the prohibition any further would be to impose undue restriction on the freedom of the student.

As to the second reason, I think it should be left to the student and his guardian to judge whether the transfer applied for would be beneficial to him or not.

And as to the third, I do not think it would be right to protect a college at the expense of the student. A college should depend for protection more upon its own strength and efficiency than upon rules against transfer.

18. Because a student takes his admission into a certain college, that is no reason why he should be compelled to continue in it until his course is finished. His circumstances may change for the worse or the better, making him either unable to pay the fees of that college or able to pay the higher fees of a better college ; or the circumstances of the college may change by changes in its staff ; and it may become desirable for the student to obtain a transfer. To compel him to state his reasons in such a case would be most undesirable, and more injurious to discipline than to allow the transfer freely.

The attachment of a student to his college is no doubt a most laudable and wholesome feeling, and should be always carefully fostered and encouraged. But it should be spontaneous; and it cannot be created by any compulsory rules against transfer. Such rules may protect the pecuniary interests of colleges ; but they will be far from being conducive to the creation of any such feeling; indeed, to the Indian mind, they will make the relation between a student and his college appear more mercenary than it ought to be. They may also, by guaranteeing protection against any falling off of students, indirectly tend to impair the desire for improvement on the part of colleges.

19. I would, therefore, recommend the allowing of transfer freely, except where it is asked for to evade discipline.

V.—Improvement of Colleges.

20. The next recommendation in the Report, in which I am unable to concur, is that contained at page 19, according to which, Second Grade Colleges, that is, those teaching only up to the standard of the First Examination in Arts, should either rise to the rank of First Grade Colleges, that is, teach up to the B.A. standard, or fall back to the position of high schools.

21. The reasons for this recommendation, as far as I understand them, are, that such colleges are really schools with two college classes added, and that the distinction between college students and school boys is not observed in them as well as it ought to be.

So far as the recommendation aims at the abolition of inefficient second grade colleges, I entirely concur in it. But that a college should cease to exist merely because it is a second grade college with a school attached, is a proposition to which I am unable to assent. If it does its work efficiently so far as it aims, it is no good objection against it that it does not aim higher. The objection that the distinction between college students and school boys is apt to be overlooked in such institutions, appears to me to be, I must say with all respect, more of a sentimental than a practical character, especially with reference to non-residential educational institutions such as most of our colleges and schools are.

The teaching in such institutions stopping at the F.A. or Intermediate standard, no doubt leaves the Arts course of study incomplete ; but our University system by recognizing the attainment of that standard as a qualification

for admission to the courses of study in Medicine and Engineering, indirectly recognises a legitimate break in the Arts course after the F.A. Examination.

22. I would add that, considering the wide limits of our University spheres, the difficulties in the way of students resorting to a few central places of study within those limits, the scattered nature of the existing second grade colleges, and the fact of their having done good work in the past, it would be undesirable in the interests of education that they should be compelled to cease to exist unless they make an attempt to rise higher,—an attempt which may reduce many of them to a worse condition than what they are now in.

23. With regard to First Grade Colleges, I should here observe that as high education has made only small progress in this country, and as most of those colleges have been established to meet the educational wants of the people, though it is necessary to introduce improvements in them for increasing their efficiency and for raising the standard of education, the Universities must not only be careful not to press measures of reform with undue haste, but should also actively help the colleges in bringing about the required reforms. And one of the modes in which Universities may render such help would be by establishing Physical and Chemical laboratories which may, under suitable conditions and restrictions, be available to such of the colleges as are earnestly endeavouring to improve by applying all their resources to increase their efficiency, without reserving any profit for their proprietors. The forced abolition of any such college, owing to its inability to equip itself fully, must be regretted by all, and should be prevented if possible. Nor will it be any improper diversion of University funds, derived as they are chiefly from fees paid by students, to apply them in part to help colleges to which the poorer classes of students resort for receiving education at a moderate cost.

VI.—Recognition of Private Schools.

31. The next point in the Report to which I find myself unable to assent, is the recommendation contained at page 20 that the recognition of a school by the University should depend upon its recognition by the Director of Public Instruction.

32. So far as Government and aided schools are concerned, there can be no objection to this recommendation. But as regards unaided private schools, the propriety of the recommendation is open to question. These schools receive no aid from Government ; and it does not seem to be right to place them practically under the control of the Education Department, to subject them to the rules made by the Director of Public Instruction, and to compel them to adopt the scheme of studies prescribed by him. It would amount to an undue interference with their freedom of action in directions in which they might be left free to move, with benefit to themselves and without harm to others ; and it would tend to reduce the school education of each Province to a dead level of uniformity not always conducive to progress.

All that the unaided private schools want is recognition by the University, so that they may send up their students as candidates for the University Entrance Examination ; and for that purpose, all that the University is called upon to ascertain is that they are well-conducted institutions, are efficient in teaching up to the Entrance Examination standard, and are not injurious to the interests of discipline. It is true, the University has no adequate machinery for ascertaining these matters, and even if it were to determine the question of recognition of a school for itself, it must depend upon the Director of Public Instruction for information. But though in practice the report of the Director of Public Instruction or of one of his subordinates will have to be accepted, as a matter of principle the determination of the question of recognition should be an act of the University. Moreover, even from a practical point of view, it makes a great deal of difference whether the recognition of a school is an act of the University or of the Education Department. For with all respect for an officer of the high position of a Director of Public Instruction, one may say that the Syndicate of the University, of which he will always be a member and which has other responsible members associated with him, would be a better authority to determine any question than he alone can be.

Unaided private schools no doubt concern the Education Department in this respect that they compete with schools recognized by it. But this circumstance, while it entitles the head of the Department to a voice in the determination of the question of their recognition, is itself a reason for not making him the sole judge in the matter.

VII.—Abolition of Text Books in English for the Entrance Examination.

24. The point next in order upon which I feel bound to note my dissent, is the recommendation contained at page 25 of the Report, for the abolition of text books in English for the Entrance Examination.

The main reason for this recommendation, as I gather from the Report, may be stated thus: The object with which students of the Entrance class read English is "to enable them to read with ease the books from which they will derive information in other subjects during their college course. To secure this the Entrance course can be described in general terms, a list of books being given by way of illustration. The list might consist of historical or descriptive books from which the student would obtain useful knowledge as well as linguistic training, and it should be so long as to exclude the possibility of all of them being committed to memory."

25. With all respect for the opinion of my learned colleagues, I would beg leave to point out that the object mentioned above will be better secured by prescribing suitable text books than by the plan recommended in the Report.

In the first place, it is not correct to say that the mere prescribing of text books leads students to commit to memory keys and notes without understanding the text. It is the prescribing of books abounding in obscure allusions, or containing thoughts and expressions beyond the comprehension of those for whom they are intended, or written in a style which cannot serve as a model for students to imitate, that leads to the evil spoken of, as some of the witnesses have said; and the remedy lies not in abolishing text books, but in prescribing better books than those in use.

In the second place, it is not correct to assume that students mechanically commit to memory keys and notes without reading the text, for the mere pleasure or convenience of doing so. Everyone who knows anything about the way in which students work at home, must know at what cost of time and trouble, and how reluctantly, they follow that course; and if they do so nevertheless, it is partly because the method of teaching in most places does not discourage that course, and chiefly because the method of examination to which they are to be subjected, encourages it, as the evidence before us goes to show. The true remedy for the evil of cramming lies then in starting with suitable text books and improving the modes of teaching and examination.

Nor will it be safe to assume that we shall suppress cramming by abolishing text books, unless we also improve our methods of teaching and examination. There are already existing many hand-books for the study of English and books of model essays; and if text books are abolished, there will soon come into existence many more books of the same type, as well as summaries, abstracts and compendious keys of the several books which the Universities might recommend; and in place of a careful study of the text book and its keys, there will be substituted a hurried reading of the numerous books just referred to, thus giving rise to a worse sort of cramming than the one we are trying to check.

The recommendation in the Report seems also to underrate the importance of a careful and critical study of suitable text books, which is one of the best modes in which an Indian student at that stage of his progress at which he is preparing for the Entrance Examination, can acquire a correct knowledge of English. A less careful and less critical reading extending over a wider range may perhaps secure the same result. But an Entrance student has not the time for it; and, moreover, it may encourage the habit of superficial and perfunctory reading, by no means desirable in a student. If there is to be any wide range of reading at all, it should be, as Mr Stephen, Officiating Principal

of the Duff College, in his evidence said, "of a simple and fluent character" and combined with "exact reading to some small extent."

26. If besides being examined in a suitable text book prescribed, candidates are also examined in unseen passages set for explanation, the evil of cramming will be sure to be checked, and students will try to learn English.

I would accordingly recommend that suitable text books in English should be prescribed for the Entrance Examination, and unseen passages also set for explanation.

VIII.—Centralization of Law Teaching.

27. The next point upon which I am unable to agree with my learned colleagues is the recommendation at pages 34, 35 of the Report that each University should provide a properly equipped Central Law College.

28. In Madras and Lahore, Law education is already centralized, and there are no indications of any endeavour to multiply Law colleges in either of those two places. The question of centralizing legal teaching in Madras and Lahore must therefore be taken as practically settled for the present.

In each of the cities of Bombay and Allahabad there is only one Law college; but there are other Law colleges affiliated to the Universities of Bombay and Allahabad; while the Calcutta University has a large number of Law colleges affiliated to it, four of which are in Calcutta and the rest in the mofussil. The question of centralizing Law education may therefore arise with reference to the Universities of Calcutta, Bombay and Allahabad.

The state of things observed at Lahore and the city of Bombay does not, however, make one very hopeful about the efficacy of centralization. Moreover, there is a circumstance connected with the colleges of Bengal which should be noticed here. The income derived by some of them from their Law department goes materially to help their Arts department; and if the former be closed, as will be the case if Law education is centralized, the latter will suffer. This is a result which should be avoided if possible.

Another strong reason against centralization so far as Calcutta is concerned, consists in the large number of its Law students. No central college, however well managed, can conveniently accommodate or efficiently teach such a large number of students.

29. As regards the Universities of Calcutta, Bombay and Allahabad, I would therefore leave Law teaching in the hands of the colleges; provided that they increase their staff where it is insufficient, and make arrangements for tutorial supervision by having classes in the evening as well as in the morning. And I would recommend that those three Universities should establish at their local centres good Law libraries accessible to all Law students of affiliated colleges, and Law societies under the guidance of Committees composed of members of the Bench and the Bar of the High Court and of the Professors of the Law colleges, where Law students may meet and read papers and have debates on questions connected with Law.

30. It may be said that a College is bound to devote the whole of the income derived from its Law department to the improvement of that department, and it should not appropriate any portion of such income to the purposes of its Arts department; and that one of the reasons given above for allowing Law teaching to remain in the hands of private colleges is therefore a bad reason.

I am unable to accept this view as correct. No doubt the improvement of the Law department should be the first charge on the income derived from that department. But if after satisfying that charge, any surplus remains, there is no good reason for holding that it should not be appropriated to the purposes of the Arts department of the college. Such freedom in the appropriation of its funds is beneficial to the college as a whole without being injurious to any part of it, and it should not be restricted, seeing that our private colleges have so little in the shape of endowments to support them.

IX.—The Matriculation and the School Final Examination.

33. Another portion of the Report in which I am unable to concur is that at pages 45 to 48 in which my learned colleagues express their views as to whether and how far the School Final Examination should take the place of the Matriculation Examination.

34. No definite scheme of the School Final Examination being before us, we cannot compare its merits with those of the Matriculation Examination. But whatever the nature of that scheme may be, we may say this, that if a literary as distinguished from a technical course of school education is retained, as one may presume it will be, the test of such education and that of a student's fitness to enter a college or University, ought to be the same, and one examination ought to be sufficient as a test for both, instead of examinations being multiplied unnecessarily. A large examination no doubt has its difficulties, but they are not removed by making the School Final to take the place of the Matriculation Examination.

The question is reduced to this, namely, whether if there is to be one examination, it should be the School Final or the Matriculation Examination. I think it ought to be the latter. It will serve the double purpose of testing whether a student has pursued his school course of literary education properly and whether he is fit to enter a college. The opposite view will result in placing all schools whether they receive aid from Government or not, under the control of the Education Department, though many of them impart education only to enable their students to enter the University. The latter class of schools where they receive no aid ought to be placed under the control of the University.

If the object be to prevent unfit students from entering the University, it will be secured by raising the standard of the Matriculation Examination as the Report recommends; and it will not be necessary to remove the examination which students have to pass after finishing their school education, from the control of the University and place it under that of the Education Department or to wish for the Matriculation certificate not being taken as a qualification for certain purposes.

The view approved in the Report will also have the effect of materially reducing the resources of the Universities which are derived in a large measure from the fees paid by candidates for the Matriculation Examination.

X.—Appointment of Teachers to set Question Papers.

35. The point next in order in the Report upon which I deem it my duty to note my dissent, is the recommendation at page 50 for the repeal of the rule, that no one engaged in teaching a subject for any examination should be appointed to set questions in that subject for that examination.

36. The reason for this recommendation, as I understand it, is that teachers are the persons best qualified to set proper question papers in their respective subjects. Theoretically, perhaps, this may be true; but judging from practical results, one cannot say much in favour of papers set at our examinations by teachers as examiners. For though the rule prohibiting the appointment of teachers to set papers has been in operation in Calcutta only since 1890, the complaint against the suitableness of the papers set has been of much longer duration; and the questions set before that date do not compare favourably with those of subsequent years. Nor has there been any great practical inconvenience felt in getting competent examiners notwithstanding the operation of the rule, professors of Physics and Mathematics, and of English and History, changing places in setting papers each in the other's subject, professors teaching the B.A. course setting papers for the F.A. examination, and professors of colleges affiliated to one Indian University setting papers for the examinations of another.

37. While thus the necessity for changing the rule is at best doubtful, the reasons for maintaining it are, in my humble judgment, in full force still. The rule in Calcutta was adopted on the unanimous recommendation of a committee (of which two such educational experts as Sir A. Croft and Mr. Tawney were members) appointed to enquire into and report upon the alleged premature disclosure of certain examination questions (see the Minutes of the Calcutta University for 1890-91, page 49), and the view maintained by one of the professor examiners concerned in defending his action, shows that there may be

such honest differences of opinion in connection with the matter as would make the rule under consideration a very desirable one. The rule does not imply any reflection on the integrity of teacher examiners, but it is intended only to guard against the pupils of any teacher from having an undue advantage over other candidates at any examination, and to relieve the teacher from a conflict of duties which may arise if he is appointed to set questions in his own subject. That such undue advantage may be given, and such conflict of duties may arise, is clear when we consider that a teacher in teaching properly, must dwell on the relative importance of the different parts of his subject, and an examiner, to examine properly, must set his question paper keeping in view such relative importance ; and it is difficult to prevent the teaching from affording a fair indication of the nature of the expected examination. Mr. Todhunter of Cambridge, in his " Conflict of Studies and other Papers," says (I am referring to his remark from memory, not having the book before me now) the wonder is that the importance of a rule like the one under consideration is not more readily recognized.

38. To my mind, it is of the utmost importance that we should secure the confidence of the public generally, and of the students in particular, in the absolute fairness of our University examinations. Again, if it is necessary in the interests of discipline that students should not talk or think lightly of their professors and examiners, we must carefully avoid giving them any reasonable ground for talking or thinking in that style.

I therefore think that the rule in question is a salutary one and should be generally followed.

XI.—Improvement of School Education.

39. I may here add a few words which, though not strictly entitled to form any part of my Note of Dissent when the Report does not expressly affirm anything to the contrary, may nevertheless find a place in this Note, as the majority of the Commission, disagreeing with me, thought it not quite within their province to consider in detail or express any opinion upon the points I am going to speak of.

40. We are agreed that although there has been a rapid multiplication of Colleges and schools connected with our Universities, and the number of graduates and undergraduates has grown largely, the education imparted is not as thorough, and the highest standards attained not as high, as might be desired.

The evidence before us shows that these unsatisfactory results are due to four causes—

(i) unsuitable text books and courses of study,

(ii) inefficient teaching,

(iii) injudicious methods of examination, and

(iv) insufficient encouragement for post graduate study.

And the operation of some of them is intensified by the poverty of the majority of Indian students, which renders them unable to obtain the help of competent private tutors. The first mentioned three causes have been dealt with in our Report so far as they directly concern the Universities, and means suggested for their complete or partial removal. The last (poverty) can only be taken note of as a reason for emphasizing the necessity of tutorial supervision in our colleges.

The first three causes just referred to, begin, however, to operate much earlier in the student's career than the stage at which he enters the University; and the mischief produced by their operation for eight years of the most impressionable period of student life, is not likely to be undone by improvements in the system of college or University education for a succeeding period of four or five years. The real improvement of University education must have its foundation laid on an improved system of school education; and the few words I am going to add with reference to the three causes mentioned above, so far as they affect school education, may not, I venture to hope, be deemed altogether out of place.

41. (i) *Unsuitable text books and courses of study.*—One reason why our boys learn English so badly, and why they mechanically commit to memory

many things without understanding them, is, because we often use reading books in English which are only imperfectly intelligible to them, by reason of their relating to scenes and incidents wholly foreign to the Indian student, and we often prescribe subjects and text books involving ideas which cannot be clearly comprehended and realised by boys of tender age. To teach English to Indian boys by means of reading lessons with ease and effect, we should select lessons that relate to scenes and incidents familiar to them, so that they may not have to meet the double difficulty of having to acquire knowledge of unknown matters in unknown forms of expression. Again, to enable a boy to understand what he reads, and to encourage him to exercise his intelligence along with his memory, we must prescribe for him books and courses of study which he can understand, instead of appointing, as we often do, books which, though short, are by no means elementary, and subjects such as Physical Science, Physical Geography and the difficult portions of Arithmetic, for boys of 11 or 12 years. These subjects are, it is true, read in the vernacular language of the students; but that does not meet the objection that they are read too early, that is, before the students are fit to understand them.

(ii) *Inefficient teaching.*—This is due to our employing in our schools untrained and ill-paid teachers, and to our making them teach large classes. We should have as teachers men who are properly trained in the art of teaching —that is, trained not merely mechanically but intelligently, and who are of high moral character and even temper and are able to influence their pupils more by love than by fear; and they should be better paid than they are now. And we should have rules requiring (1) that no class or section of a class should contain more than 40 or 50 students and (2) that the higher classes should have regular written exercises, so necessary to enable a foreigner to learn to write English correctly.

(iii) *Injudicious methods of examination.*—There are three public examinations which come before the Entrance, namely, the Lower Primary, the Upper Primary, and the Middle Vernacular, some of which are compulsory in certain Provinces. The question papers set at these examinations are not much better than those set at the Entrance Examination; and they encourage cramming in the same way. Moreover, the pressure of too many public examinations, as Dr. Miller in his evidence justly says, must have an injurious effect on the infant mind.

These examinations are held to test the fitness of boys after they finish their education in their vernacular language, and are necessary so far as students not intending to proceed further in their studies are concerned. Nor would I be opposed to boys learning subjects like Mathematics, History and Geography in their vernacular, if they were taught systematically and once for all, and were not required to be learned over again in English, and if such a method was as compatible with their learning English thoroughly as the method of reading those subjects in English, a point upon which there is much difference of opinion. But to require boys of 11 or 12 years to read a number of subjects hurriedly in their vernacular, in order that they may have time to read them again in English for their Entrance Examination, is a course which must prove injurious to mental progress.

42. There is one more reason, not noticed in our Report, why the highest results attained by our Universities are not as high as might be desired; and it is the want of encouragement for our graduates, in the shape of scholarships or educational posts with suitable emoluments and sufficient leisure, to stimulate them to work in the fields of original research. The Prem Chand Roy Chand Studentship in Calcutta has of late years been utilized in this direction, and a few research scholarships have been founded. The enlightened liberality of the country should come forward with more help; and with greater encouragement, better results may be expected.

43. Before I conclude, I think it is due to my learned colleagues and to myself that, I should say that I have given my most anxious attention to the points on which I felt bound to differ from them, and that our differences are due to our approaching the problem of educational reform from somewhat different points of view. My learned colleagues have aimed exclusively at raising the

standard of University education and college discipline, and some of the measures of reform they have advocated for the attainment of that exclusive object, naturally enough, tend to place education under the control of Government and small bodies of experts and to reduce the control of what is known as the popular element, to repress imperfectly equipped colleges and schools, to deter students of average ability and humble means from the pursuit of knowledge, and, in short, to sacrifice surface in order to secure height. While yielding to none in my appreciation of the necessity for raising the standard of education and discipline, I have ventured to think that the solution arrived at is only a partial solution of the problem, and that we should aim not only at raising the height, but also at broadening the base, of our educational fabric. And where I have differed from my learned colleagues, I have done so mainly with a view to see that our educational system is so adjusted that while the gifted few shall receive the highest training, the bulk of the less gifted but earnest seekers after knowledge may have every facility afforded to them for deriving the benefits of high education.

GOOROO DASS BANERJEE.

SIMLA;

The 9th June 1902.

APPENDIX A.

WITNESSES WHO GAVE EVIDENCE BEFORE THE INDIAN UNIVERSITIES COMMISSION ARRANGED UNDER EACH UNIVERSITY IN THE ORDER OF THEIR EXAMINATION.

UNIVERSITY OF CALCUTTA.

1	The Very Reverend E. Lafont, S.J., C.I.E., M.I.E.E.	*Rector, St. Xavier's College, Calcutta.*
2	The Reverend K. S. MacDonald, M.A., D.D.	*Late Principal, Duff College, and President of the Board of Studies in English.*
3	Mr. Surendra Nath Banerjee, B.A. .	*Proprietor and Professor of English Literature, Ripon College, Calcutta.*
4	Mr. Krishna Kamal Bhattacharya, B.A., B.L.	*Principal, Ripon College, Calcutta.*
5	Mr. J. S. Slater	*Principal, Civil Engineering College, Sibpur, and Officiating Director of Public Instruction, Bengal.*
6	The Reverend J. Morrison, M.A., D.D.	*Principal, General Assembly's Institution, Calcutta.*
7	Mr. A. C. Edwards, M.A. . .	*Principal, Presidency College, Calcutta, and Registrar of the Calcutta University.*
8	Mr. P. K. Ray, D.Sc. . . .	*Professor of Philosophy, Presidency College, Calcutta.*
9	Mr. W. Billing, M.A. . . .	*Officiating Principal, Hughli College.*
10	Lieutenant-Colonel G. Bomford, M.D., I.M.S.	*Principal, Medical College, Calcutta.*
11	Mr. W. H. Arden Wood, B.A., F.C.S.	*Principal, La Martinière College, Calcutta.*
12	The Reverend A. Paton Begg, M.A..	*Principal, London Missionary Society's Institution, Bhawanipur.*
13	Mr. H. Stephen, M.A. . . .	*Officiating Principal, Duff College, Calcutta.*
14	Mr. E. B. Havell, A.R.C.A. , .	*Principal, School of Art, Calcutta.*
15	Mr. J. Van Someren Pope, M.A. .	*Director of Public Instruction, Burma.*
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Ripon College and School.
General Assembly's Institution and School.
Albert College.
City College.
Medical College.
St. Xavier's College.
Sibpur Civil Engineering College.
Bangabasi College.
Calcutta Academy.
Metropolitan Institution.
Indian Science Association.

PATNA.

Patna College.
Behar School of Engineering.
Behar National College.

KURSEONG.

Kurseong Training College.

MADRAS.

Presidency College.
Madras Christian College and Free Church Institution.
Law College.
Medical College.
Pachaiyappa's College.
Teacher's College, Saidapet.
College of Agriculture, Saidapet.

BANGALORE.

Central College.

BOMBAY.

Elphinstone College.
Wilson College.
Grant Medical College.
St. Xavier's College.
Anjuman-i-Islam School.

POONA.

Deccan College.
College of Science.
Fergusson College.

AHMEDABAD.

Gujarat College.

ALLAHABAD.

Muir Central College.
Kayastha Pathshala.
Central Training College.

BENARES.

Queen's College.
Central Hindu College.

LUCKNOW.

Reid Christian College.
Isabella Thoburn College.
Canning College.

AGRA.

Agra College.
St. Peter's College.
St. John's College.

ALIGARH.

Muhammadan Anglo-Oriental College.

NAGPUR.

Morris College.
Hislop College.
St. Francis de Sales' School.

JUBBULPORE.

Government College.
Training College.

LAHORE.

Government College.
Oriental College.
Medical College.
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INDEX.

Affiliation of colleges, procedure for, 13, 55, 59; conditions of: certificate of desirability by the Director of Public Instruction, 14, 60; financial stability, 14, 60; properly constituted governing body, 14, 15, 60; adequate teaching staff, 15, 60; suitable and healthy buildings, 15, 60; residence of staff near the college where space permits 15, 60; residence. of students in college lodgings or hostels, 15, 16, 61; adequate provision for courses of study, 16, 61; scale of minimum fees, 16 to 19, 61, 62; dissent with regard to minimum fees, 77, 78; proper transfer rules, 19, 62; no new second-grade colleges to be affiliated, 19, 62, 63.

Agriculture, training in, existing arrangements and proposals, 40, 41, 68.

Athletics, importance of, 20, 63.

Boards of Studies, constitution and functions, 11, 59.

Certificate, that a student has pursued a regular course of study, 16, 61; school, required by a matriculation candidate, 47.

Classical Languages, Greek and Hebrew, 25; Latin, 25, 26, 63; Sanskrit, 26, 64; Arabic, 26, 27, 64; Persian, 27, 64; vernacular languages not to be substituted for, in University courses, 26, 63.

Colleges, pre-University, 2; number of existing, 5; supervision of, 14, 60; proposals regarding second-grade colleges, 19, 62, 63; dissent, 79, 80; college life, 20, 63.

Commerce, suggested Faculties of, negatived, 10, 11, 58; existing facilities for commercial instruction, 41, 42; proposals, 42, 68.

Degrees, outline of existing courses of study for, in Arts and Science, 21 to 24; outline of proposed courses, 33, 34, 66, 67.

Director of Public Instruction, to be an *ex-officio* Fellow, 9, 58; to be Vice-Chancellor of the Syndicate, 12, 59.

Disaffiliation of colleges, procedure for, 13, 55, 59; dissent 76, 77.

Discipline of students, 15, 60.

Engineering, preliminary qualifications and courses of instruction, 40, 68; standardization of degrees, 40, 68.

English, defects of present system of instruction, 24; text-books, 24, 25, 63, 81, 82; course for the M.A. degree, 25, 63; examination in, of science students, 25, 63.

Examination papers, suggestions regarding the style and marking of, 51, 71.

Examinations, University, should be subordinated to teaching, 20; need for, 43; existing scheme of, 43, 44; duration of courses leading up to, 44; Previous Examination of the Bombay University, proposed abolition of, 44, 69; proposed names of, 44, 69; admission of private students to, 46, 47, 69; examinations for Honours, 49, 70; mutual recognition of, by Indian Universities, 49, 70; dates of, 49, 50, 70; places of, 50, 70; methods of, 51, 71; "examination by compartments" condemned, 52, 71; suggestions regarding candidates who have failed and wish to re-appear at, 52, 71; preparation and use of percentage statements of results, 52, 71.

Examiners, appointment of, 50, 70; teachers to be employed as, 50, 70; dissent, 83, 84; rule preventing Syndics being appointed as, to be rescinded, 50, 70; Boards of, 50, 52, 70, 71.

Faculties, general arrangement of, 10, 58; institution of, for Oriental Learning, Commerce, and Theology deprecated, 10, 11, 58.

Fees, minimum scale of, general principles, 16, 17, 61; existing practice, 17, 18; proposed regulations, 18, 19, 61, 62; dissent, 77, 78.

Fellows, distribution by Faculties, 9, 57; privileges of existing, not appointed to the Senate, 9, 10, 58; honorary, 10, 58.

Geography, 31.

Graduates, maintenance of a Register of, 13, 60; proposed Convocation of, 13, 60.

History, 30, 31, 65.

History of Universities in British India, Hindu and Muhammadan learning before British rule 2; pre-University collegiate education, 2, 3; establishment of Indian Universities, 3, 4; Acts of Incorporation, 4, 5; subsequent increase in number of colleges, 5; general condition and results of University education, 5, 6.

Indian Universities Commission, appointment and proceedings of, 1.

Intermediate University course, subjects proposed for, 29.

"Keys", condemnation of the use of, 20, 63.

Laboratories, provision of, 6, 16, 57, 61.

Law, existing systems of instruction, 34, 35; proposals, 35, 67; dissent with regard to the centralization of law teaching, 82.

Lectures, number and character of, 16, 61.

Legislation, outline of the, required to give effect to the proposals contained in the Report, 55.

Libraries, suggestions regarding, for Universities and colleges, 6, 13, 16, 20, 57, 59, 61, 63.
Lieutenant-Governor of Bengal, to be Rector of the Calcutta University, 9, 58.

Marks, percentage required for passing examinations, 51, 71; not to be published, but may be communicated to candidates, 51, 71.
Mathematics, 30, 65.
Matriculation Examination, the, inadequacy and general defects of, 44, 45, 69; proposed minimum age-limit for, 45, 46, 69; proposed limitation of the number of times a candidate may appear for, 46, 69; admission of private students to, 46, 47, 69; recognition of, as a test of Government service, 47, 48, 69; whole or part replacement of, by the School Final Examination, 48, 69, 70; dissent, 83; subjects and standard of, 48, 49, 70.
Medicine, proposals regarding colleges of, 35 to 37, 67; existing courses of instruction in, 37, 38; preliminary qualifications for the study of, 38, 68; proposals regarding courses of instruction and degrees, 38 to 40, 68.
Modern languages of Europe, French and German, 29, 65.

Oriental Learning, before British rule, 2; Faculties of, 10, 58; examinations for titles in, 27, 64; Punjab course for degrees in, 28, 29, 64, 65.

Philosophy, 29, 30, 65.
Political Economy, 31, 65.
Private students, regulations to check the appearance of, at University examinations, 46, 47, 69.

Registrar, appointment and staff, 13, 59.
Residence of students in college lodgings or hostels, 15, 16, 61.

Scholarships, for encouragement of poor and able students, 17, 62, 77, 78; post-graduate scholarships, 85.
School education, defects of existing system, 84, 85.
Schools, proposals regarding the recognition of, by the University, 20, 63; dissent with regard to private schools, 80, 81.
Science, to be excluded from the Entrance and made an optional subject for the Intermediate course, 31, 32, 65; proposals regarding courses and examinations, 32, 33, 65, 66.
Senate, existing constitution, 4, 5, 8; proposed re-constitution, 8 to 10, 57, 58; alternative scheme in minute of dissent, 73 to 76; attendance at meetings, 9, 58; method of voting, 10, 58.
Syndicate, existing, 11, 12; proposed constitution and powers, 12, 13, 55, 59; dissent to proposal to secure a majority of teachers on the, 76.

Teachers, existing arrangements for the training of, 42, 43; proposals, 43, 69.
Teaching Universities, present position, 6; suggestions, 6, 7, 57; proposed legislation, 55, 57.
Text-books, selection by Boards of Studies 11, 59; in English, 24, 25, 63, 81, 82; in Philosophy, 29, 30, 65; in History, 30, 65.
Theology, proposals for a Faculty of and degree in, negatived, 11, 58.
Transfer of students, proposals for regulating, 19, 62; dissent, 78, 79.
Tutorial assistance, an essential part of college work, 16, 61.

Universities, proposals regarding local limits of, 7, 57; multiplication of, deprecated for the present, 7, 8, 57.
University Funds, inadequacy of, to defray cost of recommendations and suggested means of increase, 52 to 55, 72.

Vernacular languages of India, to be introduced in combination with English or a classical language in the M. A. course, 25, 63, 67; vernacular composition to be compulsory in the B. A. course, 28, 64; all students to be examined in, on leaving school, 28, 64.

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